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## THE ASSOCIATION METHOD<sup>1</sup>

By PROFESSOR CARL G. JUNG

Ladies and Gentlemen: When I was honored with the invitation from Clark University to lecture before this esteemed assemblage, a wish was at the same time expressed that I should speak about my methods of work, and especially about the psychology of childhood. I hope to accomplish this task in the following manner:

In my first lecture I shall try to present to you the view points of my association methods; in my second lecture I shall discuss the significance of the familiar constellations; while in my third lecture I shall enter more fully into the psychology of the child.

I might easily confine myself exclusively to my theoretical views, but I believe that it will be better to illustrate my lectures with as many practical examples as possible. We shall therefore occupy ourselves first with the method of association, a method which has been of valuable assistance to me both practically and theoretically. The association method in vogue in psychology, as well as its history, is of course, so familiar to you that there is no need to speak of it. For practical purposes I make use of the following formulary:

|              |              |               |
|--------------|--------------|---------------|
| 1. head      | 19. pride    | 37. salt      |
| 2. green     | 20. to cook  | 38. new       |
| 3. water     | 21. ink      | 39. custom    |
| 4. to sing   | 22. angry    | 40. to pray   |
| 5. dead      | 23. needle   | 41. money     |
| 6. long      | 24. to swim  | 42. foolish   |
| 7. ship      | 25. voyage   | 43. pamphlet  |
| 8. to pay    | 26. blue     | 44. despise   |
| 9. window    | 27. lamp     | 45. finger    |
| 10. friendly | 28. to sin   | 46. expensive |
| 11. to cook  | 29. bread    | 47. bird      |
| 12. to ask   | 30. rich     | 48. to fall   |
| 13. cold     | 31. tree     | 49. book      |
| 14. stem     | 32. to prick | 50. unjust    |
| 15. to dance | 33. pity     | 51. frog      |
| 16. village  | 34. yellow   | 52. to part   |
| 17. lake     | 35. mountain | 53. hunger    |
| 18. sick     | 36. to die   | 54. white     |

<sup>1</sup>Lectures delivered at the celebration of the twentieth anniversary of the opening of Clark University, September, 1909; translated from the German by Dr. A. A. Brill, of New York.

|                  |                |               |
|------------------|----------------|---------------|
| 55. child        | 71. flower     | 86. false     |
| 56. to take care | 72. to beat    | 87. anxiety   |
| 57. lead pencil  | 73. box        | 88. to kiss   |
| 58. sad          | 74. wild       | 89. bride     |
| 59. plum         | 75. family     | 90. pure      |
| 60. to marry     | 76. to wash    | 91. door      |
| 61. house        | 77. cow        | 92. to choose |
| 62. dear         | 78. friend     | 93. hay       |
| 63. glass        | 79. luck       | 94. contented |
| 64. to quarrel   | 80. lie        | 95. ridicule  |
| 65. fur          | 81. deportment | 96. to sleep  |
| 66. big          | 82. narrow     | 97. month     |
| 67. carrot       | 83. brother    | 98. nice      |
| 68. to paint     | 84. to fear    | 99. woman     |
| 69. part         | 85. stork      | 100. to abuse |
| 70. old          |                |               |

This formulary has been constructed after many years of experience. The words are chosen and partially arranged in such a manner as to strike easily almost all complexes of practical occurrence. As shown by the above formulary there is a regular mixing of the grammatical qualities of the words. This, too, has its definite reasons.<sup>1</sup>

Before the experiment begins the test person receives the following instruction: "Answer as quickly as possible the first word that occurs to your mind." This instruction is so simple that it can easily be followed by anybody. The work itself, moreover, appears extremely easy, so that it might be expected that any one could accomplish it with the greatest facility and promptitude. But contrary to expectation the behavior is quite different.

*An Example of a Normal Reaction Type*

| Stimulus word | Reaction Time<br>Unit 0.2 second | Reaction    | Reproduction     |
|---------------|----------------------------------|-------------|------------------|
| head          | 9                                | foot        | part of the body |
| green         | 11                               | blouse      |                  |
| water         | 14                               | clear       | light            |
| to sing       | 6                                | children    |                  |
| dead          | 11                               | do not like |                  |
| long          | 6                                | short       | I, tall          |
| ship          | 7                                | forth       |                  |
| to pay        | 9                                | bills       |                  |
| window        | 9                                | room        |                  |
| friendly      | 10                               | children    |                  |
| table         | 9                                | chair       |                  |
| to ask        | 10                               | all kinds   | room             |
| cold          | 7                                | warm        |                  |

<sup>1</sup>The selection of these stimulus words was naturally made for the German language only, and would probably have to be considerably changed for the English language.

*An Example of Normal Reaction Type—Cont.*

| Stimulus word | Reaction Time<br>Unit 0.2 second | Reaction | Reproduction    |
|---------------|----------------------------------|----------|-----------------|
| stem          | 6                                | flower   |                 |
| to dance      | 9                                | I        |                 |
| lake          | 8                                | Zurich   |                 |
| sick          | 8                                | sister   |                 |
| pride         | 6                                | people   |                 |
| to cook       | 7                                | woman    |                 |
| ink           | 5                                | black    |                 |
| angry         | 10                               | children | people          |
| needle        | 9                                | to prick |                 |
| to swim       | 10                               | healthy  |                 |
| voyage        | 9                                | England  |                 |
| blue          | 10                               | pretty   |                 |
| lamp          | 6                                | light    |                 |
| to sin        | 8                                | much     | people          |
| bread         | 10                               | good     |                 |
| rich          | 9                                | nice     | like, necessary |
| tree          | 6                                | green    |                 |
| to prick      | 9                                | need     |                 |

*An Example of an Hysterical Reaction Type*

| Stimulus word | Reaction Time<br>Unit 0.2 second | Reaction   | Reproduction   |
|---------------|----------------------------------|--|----------------|
| needle        | 7                                | to sew   |                |
| to swim       | 9                                | water  | ship           |
| * +           |                                  |  |                |
| voyage        | 35                               | to ride, motion, voyager                                     |                |
| blue          | 10                               | color  |                |
| lamp          | 7                                | to burn  |                |
| to sin        | 22                               | this idea is totally strange<br>to me, I do not recognize it |                |
| bread         | 10                               | to eat   |                |
| rich +        | 50                               | money, I don't know  | possession     |
| brown         | 6                                | nature   | green          |
| to prick      | 9                                | needle   |                |
| pity          | 12                               | feeling  |                |
| yellow        | 9                                | color  |                |
| mountain      | 8                                | high   |                |
| to die        | 8                                | to perish  |                |
| salt          | 15                               | salty (laughs) I don't<br>know                               |                |
| new           | 15                               | old  | NaCl           |
| custom        | 10                               | good   | as an opposite |
| to pray       | 12                               | Deity  | barbaric       |
| money         | 10                               | wealth   |                |
| foolish       | 12                               | narrow minded, restricted                                    |                |
| pamphlet      | 10                               | paper  | ?              |

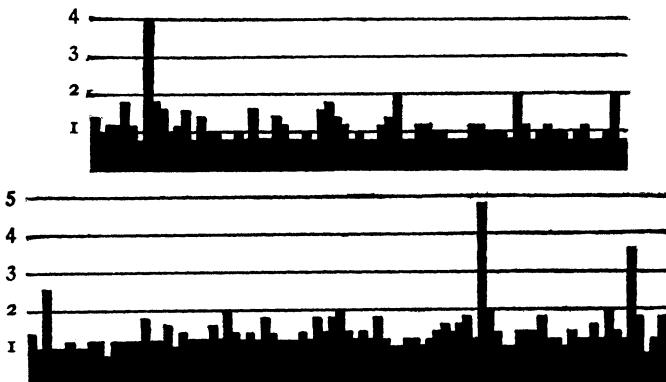
\* Denotes misunderstanding.

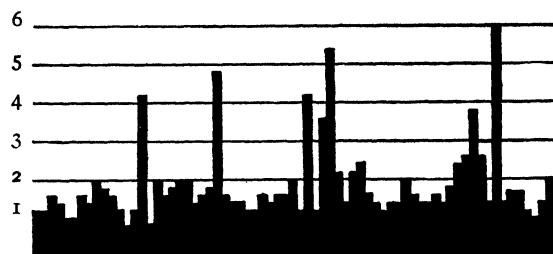
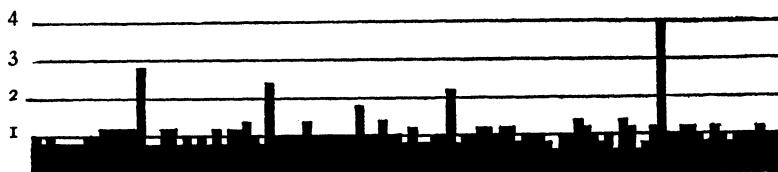
† Denotes repetition of the stimulus words.

*An Example of an Hysterical Reaction Type—Cont.*

| Stimulus word | Reaction Time<br>Unit 0.2 second | Reaction   | Reproduction   |
|---------------|----------------------------------|--|----------------|
| despise       | 30                               | that is a complicated, too foolish                             | ?              |
| finger        | 8                                | hand, not only hand, but also foot, a joint, member, extremity | ?              |
| dear          | 14                               | to pay (laughs)  |                |
| bird          | 8                                | to fly   |                |
| to fall       | 30                               | <i>tomber</i> , I will say no more, what do you mean by fall?  | ?              |
| book          | 6                                | to read  |                |
| unjust        | 8                                | just   |                |
| frog          | 11                               | quack  |                |
| to part       | 30                               | what does part mean?   | ?              |
| hunger        | 10                               | to eat   |                |
| white         | 12                               | color, everything possible, light                              |                |
| child         | 10                               | little, I did not hear well, <i>bébé</i>                       | ?              |
| to take care  | 14                               | attention  |                |
| lead pencil   | 8                                | to draw, everything possible can be drawn                      |                |
| sad           | 9                                | to weep, that is not always the case                           | to be          |
| plum          | 16                               | to eat a plum, pluck what do you mean by it? Is that symbolic? | fruit          |
| to marry      | 27                               | how can you? reunion, union                                    | union alliance |

The following curves illustrate the course of the reaction time in an association experiment in four normal test persons. The length of each column denotes the length of the reaction time.

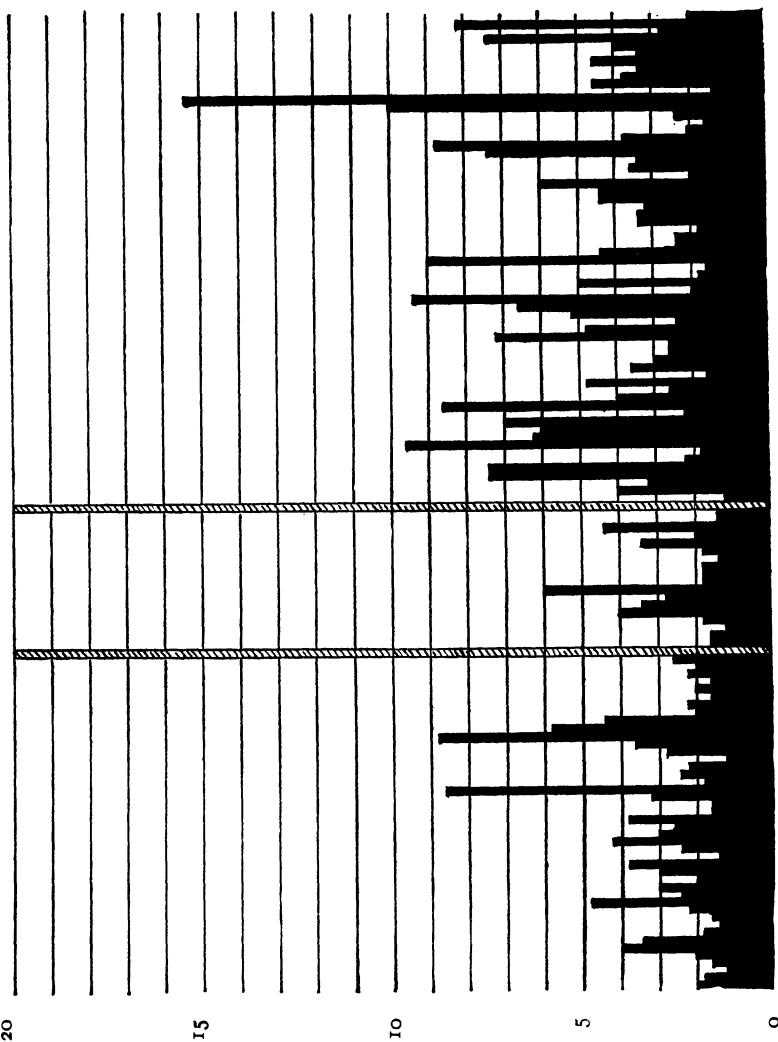




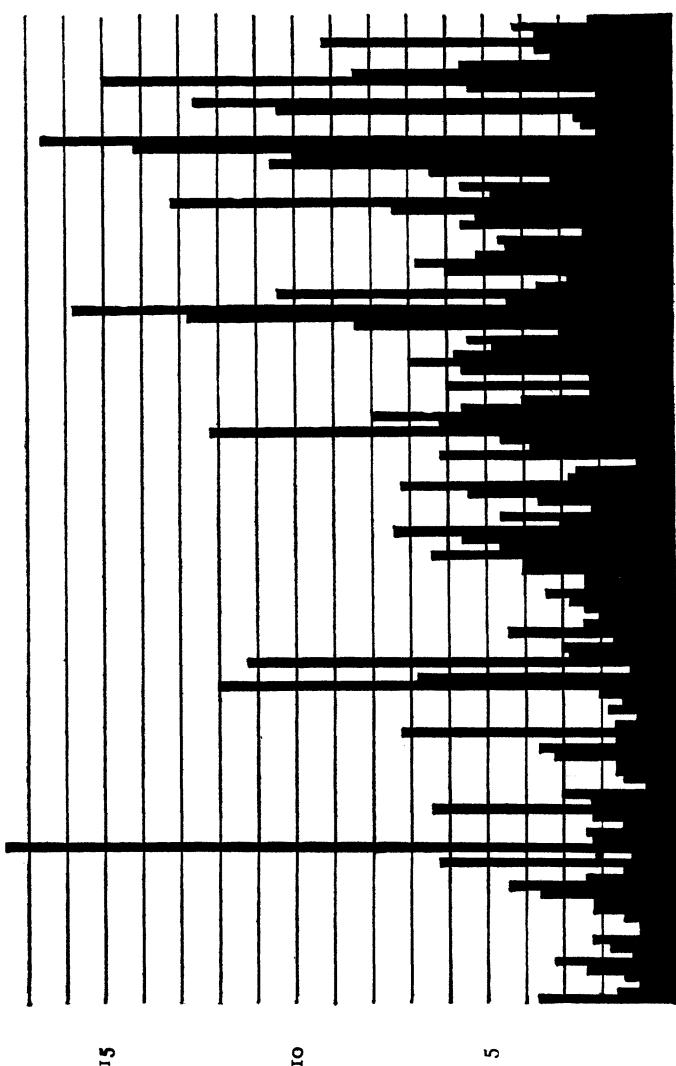
The illustrations below (pp. 224 ff.) show the course of the reaction time in hysterical individuals. The light cross-hatched columns denote the locations where the test person was unable to react (so-called failures).

The first thing that strikes us is the fact that many test persons show a marked prolongation of the reaction time. This would make us think at first of intellectual difficulties,—wrongly, however, as we are often dealing with very intelligent persons of fluent speech. The explanation lies rather in the emotions. In order to understand the matter comprehensively we must bear in mind that the association experiments cannot deal with a separated psychic function, for any psychic occurrence is never a thing in itself, but is always the resultant of the entire psychological past. The association experiment, too, is not merely a method for the reproduction of separated word couplets, but it is a kind of pastime, a conversation between experimenter and test person. In a certain sense it is even still more than that. Words are really something like condensed actions, situations, and things. When I present a word to the test person which denotes an action it is the same as if I should present to him the action itself, and ask him, "How do you behave towards it? What do you think of it? What do you do in this situation?" If I were a magician I should cause the situation corresponding to the stimulus word to appear in reality and placing the test person in its midst, I should then study his manner of reaction. The result of my stimulus words would thus undoubtedly approach infinitely nearer perfection. But as we are not magicians we must be contented with the linguistic substitutes for reality; at the same time we

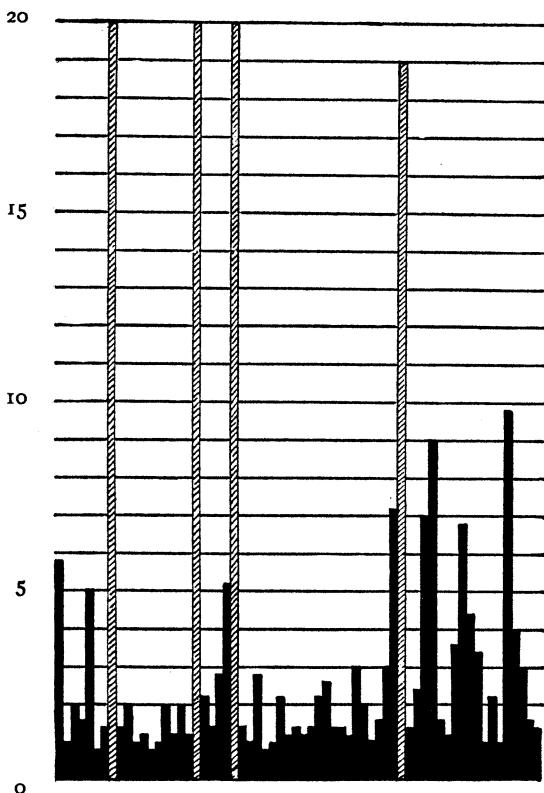
must not forget that the stimulus word will as a rule always conjure up its corresponding situation. It all depends on how the test person reacts to this situation. The situation "bride" or "bridegroom" will not evoke a simple reaction in a young lady; but the reaction will be deeply influenced by the provoked strong feeling tones, the more so if the experimenter be a man. It thus happens that the test person is often unable to react



quickly and smoothly to all stimulus words. In reality, too, there are certain stimulus words which denote actions, situations, or things, about which the test person cannot think quickly and surely, and this fact is shown in the association experiments. The example which I have just presented shows an abundance of long reaction times and other disturbances.



In this case the reaction to the stimulus word is in some way impeded, that is, the adaptation to the stimulus word is disturbed. The stimulus words are therefore merely a part of reality acting upon us; indeed, a person who shows such disturbances to the stimulus words, is in a certain sense really but imperfectly adapted to reality. Disease is an imperfect adaptation; hence in this case we are dealing with something morbid



in the psyche,—with something which is either temporary or persistently pathological, that is, we are dealing with a psychoneurosis, with a functional disturbance of the mind. This rule, however, as we shall see later, is not without its exceptions.

Let us in the first place continue the discussion concerning the prolonged reaction time. It often happens that the test person actually does *not* know what to answer to the stimulus

word. The test person waives any reaction; for the moment he totally fails to obey the original instructions, and shows himself incapable of adapting himself to the experimenter. If this phenomenon occurs frequently in an experiment it signifies a higher degree of disturbance in adjustment. I call attention to the fact that it is quite indifferent what reason the test person gives for the refusal. Some find that too many ideas suddenly occur to them, others, that not enough ideas come to their minds. In most cases, however, the difficulties first perceived are so deterrent that they actually give up the whole reaction. The following example shows a case of hysteria with many failures of reaction:

| Stimulus word | Reaction Time<br>Unit 0.2 second | Reaction              | Reproduction |
|---------------|----------------------------------|-----------------------|--------------|
| to sing       | 9                                | nice                  | +            |
| dead          | 15                               | awful                 | ?            |
| long *        | 40                               | the time, the journey | ?            |
| ship †        |                                  |                       | +            |
| to pay        | 11                               | money                 |              |
| window        | 10                               | big                   | high         |
| friendly      | 50                               | a man                 | human        |
| to cook       | 10                               | soup                  | +            |
| ink           | 9                                | black or blue         | +            |
| angry         |                                  |                       | bad          |
| needle        | 9                                | to sew                | +            |
| lamp          | 14                               | light                 | +            |
| to sin        |                                  |                       |              |
| bread         | 15                               | to eat                | +            |
| rich * †      | 40                               | good, convenient      | +            |
| yellow        | 18                               | paper                 | color        |
| mountain      | 10                               | high                  | +            |
| to die        | 15                               | awful                 | +            |
| salt †        | 25                               | salty                 | +            |
| new           |                                  |                       | good, nice   |
| custom †      |                                  |                       |              |
| to pray       |                                  |                       |              |
| money †       | 35                               | to buy, one is able   | +            |
| pamphlet      | 16                               | to write              | +            |
| to despise †  | 22                               | people                | +            |
| finger †      |                                  |                       |              |
| dear          | 12                               | thing                 | +            |
| bird          | 12                               | sings or flies        | +            |

\* Denotes misunderstanding.

† Denotes repetition of the stimulus words.

In example 3 we find a characteristic phenomenon. The test person is not content with the requirements of the instruction, that is, she is not satisfied with *one* word but reacts with many words. She apparently does more and better than the instruction requires, but in so doing she does not fulfill the requirements of the instruction. Thus she reacts:—custom—good—barbaric; foolish—narrow minded—restricted; family—big—small—everything possible.

These examples show in the first place that many other words connect themselves with the reaction word. The test person is unable to suppress the ideas which subsequently occur to her. In doing this she also pursues a certain tendency which perhaps is more distinctly expressed in the following reaction: new—old—as an opposite. The addition of “as an opposite” denotes that the test person has the desire to add something explanatory or supplementary. This tendency is also shown in the following reaction: finger—not only hand, also foot—a limb—member—extremity.

Here we have a whole series of supplements. It seems as if the reaction were not sufficient for the test person, as if something else must always be added, as if what has been already said were incorrect or in some way imperfect. This feeling we may with Janet designate as the *'sentiment d'incomplétude'*, which by no means explains everything. I enter somewhat deeper into this phenomenon because it is quite frequently encountered in neurotic individuals. Indeed it is not merely a small and unimportant subsidiary manifestation in an insignificant experiment, but rather an elemental and universal manifestation which otherwise plays a rôle in the psychic life of neurotics.

With his desire to supplement the test person betrays a tendency to give the experimenter more than he wants, he even exerts the greatest efforts to seek further mental occurrences in order finally to discover something quite satisfactory. If we translate this elementary observation into the psychology of everyday life, it signifies that the test person has a tendency constantly to give to others more feeling than is required and expected. According to Freud, this is a sign of a reinforced object-libido, that is, it is a compensation for an inner unsatisfaction and voidness of feeling. In this elementary observation we therefore see one of the main qualities of hysterics, namely, the tendency to allow themselves to be carried away by everything, to attach themselves enthusiastically to everything, and to always promise too much and hence do little. Patients having this symptom, in my experience, are always hard to deal with; at first they are enthusiastically enraptured with the physician, for a time going so far as to accept everything blindly; but they soon merge into just as blind a resistance against the physician, thus rendering any educative influence absolutely impossible.

We see therefore in this phenomenon the expression of a tendency to give more than the instruction demands and expects. This tendency betrays itself also in other failures to follow the instruction:

to quarrel—angry—different things—I always quarrel at home;  
to marry—how can you marry?—reunion—union;

plum—to eat—to pluck—what do you mean by it?—is it symbolic?

to sin—this idea is quite strange to me, I do not recognize it.

These reactions show that the test person gets away altogether from the situation of the experiment. For the instruction demands that he should answer only the word which next occurs to him. Here we find that the stimulus words apparently act with excessive strength, that they are taken as if they were direct personal questions. The test person entirely forgets that we deal with mere words which stand in print before us, and seeks in them a personal meaning; he tries to divine them and defend himself against them, thus altogether forgetting the instructions.

This elementary observation depicts another common peculiarity of hysterics, namely, that of taking everything personally, of never being able to remain objective, and of allowing themselves to be carried away by momentary impressions; this again shows the characteristics of the enhanced object-libido.

Another sign of impeded adaptation is the often occurring *repetitions of the stimulus words*. The test persons repeat the stimulus word as if they had not heard or understood it distinctly. They repeat it just as we repeat a difficult question in order better to grasp it before answering. This same tendency is shown in the experiment. The questions are repeated because the stimulus words act on hysterical individuals almost like difficult and personal questions. In principle it is the same phenomenon as the subsequent completion of the reaction.

In many experiments we observe that the same reaction constantly reappears to the most varied stimulus words. These words seem to possess a special reproduction tendency, and it is very interesting to examine their relationship to the test person. For example, I have observed a case in which the patient repeated the word "short" a great many times and often in places where it had no meaning. The test person could not directly state the reason for the repetition of the word "short." From experience I knew that such predicates always relate either to the test person himself or to the person nearest to him. I assumed that in this word "short" he designated himself, and that in this way he helped to express something very painful to him. The test person is of very small stature. He is the youngest of four brothers, who in contrast to him are all tall. He was always the "*child*" in the family, he was nicknamed "Short" and was treated by all as the "little one." This resulted in a total loss of self-confidence. Although he was intelligent, and despite long

study, he could not decide to present himself for examination; he finally became impotent, and merged into a psychosis in which, whenever he was alone, he took delight in walking about in his room on his toes in order to appear taller. The word "short," therefore, signified to him a great many painful experiences. This is usually the case with the repeated words; they always contain something very important for the individual psychology of the test person.

The signs thus far depicted are not found arbitrarily spread throughout the whole experiment, but only in very definite locations; namely, in those stimulus words which strike against special emotionally accentuated complexes. This fact is the foundation of the so-called "diagnosis of facts" (*Tatbestandsdiagnostik*); that is, of the method employed to discover by means of an association experiment, the culprit among a number of persons suspected of a crime. That this is possible I should like to demonstrate briefly in a concrete case.

On the 6th of February, 1908, our supervisor reported to me that a nurse complained to her of having been robbed during the forenoon of the previous day. The facts were as follows: The nurse kept her money, amounting to 70 francs, in a pocketbook which she had placed in her cupboard where she also kept her clothes. The cupboard contained two compartments, of which one belonged to the nurse who was robbed, and the other to the head nurse. These two nurses and a third one, who was an intimate friend of the head nurse, slept in the same room where the cupboard was. The room was in a section which was regularly occupied in common by six nurses who had free access to this room. Given such a state of affairs it is not to be wondered that the supervisor shrugged her shoulders when I asked her whom she most suspected.

Further investigation showed that on the morning of the theft the above-mentioned friend of the head nurse was slightly indisposed and remained in bed in the room the whole morning. Hence, following the indications of the plaintiff, the theft could have taken place only in the afternoon. Of the other four nurses upon whom suspicion could fall, there was only one who regularly attended to the cleaning of the room in question, while the remaining three had nothing to do in this room, nor was it shown that any of them had spent any time there on the previous day.

It was therefore natural that these last three nurses should be regarded for the time being as less implicated, and I therefore began by subjecting the first three to the experiment.

From the particulars of the case, I also knew that the cupboard was locked but that the key was kept not far away in a

very conspicuous place, that on opening the cupboard the first thing to be seen was a fur ornament (boa), and, moreover, that the pocketbook was between the linen in an inconspicuous place. The pocketbook was of dark reddish leather, and contained the following objects: one 50 franc banknote, one 20 franc piece, some centimes, one small silver watch chain, one stencil used in the insane asylum to mark the kitchen utensils, and one small receipt from Dosenbach's shoeshop in Zürich.

Besides the plaintiff and the guilty one, only the head nurse knew the exact particulars of the deed, for as soon as the former missed her money she immediately asked the head nurse to help her find it, thus the head nurse had been able to learn the smallest details, which naturally rendered the experiment still more difficult, for she was precisely the one most suspected. The conditions for the experiment were better for the others, since they knew nothing concerning the particulars of the deed, and some not even that a crime had been committed. As critical stimulus words I selected the name of the robbed nurse, plus the following words: cupboard, door, open, key, yesterday, banknote, gold, 70, 50, 20, money, watch, pocketbook, chain, silver, to hide, fur, dark reddish, leather, centimes, stencil, receipt, Dosenbach. Besides these words which referred directly to the deed, I took also the following, which had a special affective value: theft, to take, to steal, suspicion, blame, court, police, to lie, to fear, to discover, to arrest, innocent.

The objection is often made to the last species of words that they may produce a strong affective resentment even in innocent persons, and for that reason one cannot attribute to them any comparative value. Nevertheless, it may always be questioned whether the affective resentment of an innocent person will have the same effect on the association as that of a guilty one, and that question can only be authoritatively answered by experience. Until the contrary shall be demonstrated, I maintain that even words of the above mentioned type may profitably be used.

I then distributed these critical words among twice as many indifferent stimulus words in such a manner that each critical word was followed by two indifferent ones. As a rule it is well to follow up the critical words by indifferent words in order that the action of the first may be clearly distinguished. But one may also follow up one critical word by another, especially if one wishes to bring into relief the action of the second. Thus I placed together "darkish red" and "leather," and "chain" and "silver."

After this preparatory work I undertook the experiment

with the three above mentioned nurses. As examinations of this kind can be rendered into a foreign tongue only with the greatest difficulty, I will content myself with presenting the general results, and with giving some examples. I first undertook the experiment with the friend of the head nurse, and judging by the circumstances she appeared only slightly moved. The head nurse was next examined; she showed marked excitement, her pulse being 120 per minute immediately after the experiment. The last to be examined was the nurse who attended to the cleaning of the room in which the theft occurred. She was the most tranquil of the three; she displayed but little embarrassment, and only in the course of the experiment did it occur to her that she was suspected of stealing, a fact which manifestly disturbed her towards the end of the experiment.

The general impression from the examination spoke strongly against the head nurse. It seemed to me that she evinced a very "suspicious," or I might almost say, "impudent" countenance. With the definite idea of finding in her the guilty one I set about adding up the results.

One can make use of many special methods of computing, but they are not all equally good and equally exact. (One must always resort to calculation, as appearances are enormously deceptive.) The method which is most to be recommended is that of the probable average of the reaction time. It shows at a glance the difficulties which the person in the experiment had to overcome in the reaction.

The technique of this calculation is very simple. The probable average is the middle number of the various reaction times arranged in a series. The reaction times are, for example,<sup>1</sup> placed in the following manner: 5,5,5,7,7,7, 8,9,9,9, 12, 13, 14. The number found in the middle (8) is the probable average of this series. Following the order of the experiment, I shall denote the friend of the head nurse by the letter A, the head nurse by B, and the third nurse by C.

The probable averages of the reaction are:

|      |      |      |
|------|------|------|
| A    | B    | C    |
| 10.0 | 12.0 | 13.5 |

No conclusions can be drawn from this result. But the average reaction times calculated separately for the indifferent reactions, for the critical, and for those immediately following the critical (post-critical) are more interesting.

From this example we see that whereas A has the shortest reaction time for the indifferent reactions, she shows in com-

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<sup>1</sup>Reaction times are always given in fifths of a second.

*The Probable Average of the Reaction Time*

| for                             | A    | B    | C    |
|---------------------------------|------|------|------|
| Indifferent reactions . . . .   | 10.0 | 11.0 | 12.0 |
| Critical reactions . . . .      | 16.0 | 13.0 | 15.0 |
| Post-critical reactions . . . . | 10.0 | 11.0 | 13.0 |

parison to the other two persons of the experiment, the longest time for the critical reactions.

The difference between the reaction times, let us say between the indifferent and the critical, is 6 for A, 2 for B, and 3 for C, that is, it is more than double for A when compared with the other two persons.

In the same way we can calculate how many complex indicators there are on an average for the indifferent, critical, etc., reactions.

*The Average Complex Indicators for each Reaction*

| for                             | A   | B   | C   |
|---------------------------------|-----|-----|-----|
| Indifferent reactions . . . .   | 0.6 | 0.9 | 0.8 |
| Critical reactions . . . .      | 1.3 | 0.9 | 1.2 |
| Post critical reactions . . . . | 0.6 | 1.0 | 0.8 |

The difference between the indifferent and critical reactions for A = 0.7, for B = 0, for C = 0.4. A is again the highest.

Another question to consider is, in what special way do the imperfect reactions behave?

The result for A = 34%, for B = 28%, and for C = 30%.

Here, too, A reaches the highest value, and in this, I believe, we see the characteristic moment of the guilt-complex in A. I am, however, unable to explain here circumstantially the reasons why I maintain that memory errors are related to an emotional complex, as this would lead me beyond the limits of the present work. I therefore refer the reader to my work "Ueber die Reproduktionsstörungen im Associationsexperiment" (IX Beitrag der Diegnost. Associat. Studien).

As it often happens that an association of strong feeling tone produces in the experiment a perseveration, with the result that not only the critical association, but also two or three successive

associations are imperfectly reproduced, it will be very interesting for our cases to see how many imperfect reproductions are so arranged in the series. The result of computation shows that the imperfect reproductions thus arranged in series are for A 64.7%, for B 55.5%, and for C 30.0%.

Again we find that A has the greatest percentage. To be sure this may partially depend on the fact that A also possesses the greatest number of imperfect reproductions. Given a small quantity of reactions it is usual that the greater the total number of the same the more imperfect reactions will occur in groups. But in order that this should be probable it could not occur in so great a measure as in our case, where on the other hand B and C have not a much smaller number of imperfect reactions when compared to A. It is significant that C with her slight emotions during the experiment shows the minimum of imperfect reproductions arranged in series.

As imperfect reproductions are also complex indicators, it is necessary to see how they distribute themselves in respect to the indifferent, critical, etc., reactions.

*Imperfect Reproductions which occur*

| in                      |         | A  | B  | C  |
|-------------------------|---------|----|----|----|
| Indifferent reactions   | . . .   | 10 | 12 | 11 |
| Critical reactions      | . . . . | 19 | 9  | 12 |
| Post-critical reactions | . . .   | 5  | 7  | 7  |

It is hardly necessary to bring into prominence the differences between the indifferent and the critical reactions of the various subjects as shown by the resulting numbers of the table. In this respect, too, A occupies first place.

Naturally, here, too, there is a probability that the greater the quantity of the imperfect reproductions the greater is their number in the critical reactions. If we suppose that the imperfect reproductions are distributed regularly and without choice among all the reactions there will be a greater number of them for A (in comparison to B and C) even as reactions to critical words, since A has the greater number of imperfect reproductions. Admitting such a uniform distribution of the imperfect reproductions, it is easy to calculate how many we ought to expect to belong to each individual kind of reaction.

From this calculation it appears that the disturbances of reproductions which concern the critical reactions for A surpass by far the expected, for C they are 0.9 higher than the ex-

*Imperfect Reproductions*

| For | Which may be expected |                    |                         | Which really occur    |                    |                         |
|-----|-----------------------|--------------------|-------------------------|-----------------------|--------------------|-------------------------|
|     | Indifferent Reactions | Critical Reactions | Post-critical Reactions | Indifferent Reactions | Critical Reactions | Post-critical Reactions |
| A   | 11.2                  | 12.5               | 10.2                    | 10                    | 19                 | 5                       |
| B   | 9.2                   | 10.3               | 8.4                     | 12                    | 9                  | 7                       |
| C   | 9.9                   | 11.1               | 9.0                     | 11                    | 12                 | 7                       |

pected, while for B the real number is less than the one expected.

All this points to the fact that in the subject A the critical stimulus words acted with the greatest intensity, and hence the greatest suspicion falls on A. Practically one may venture to designate such a subject as probably guilty. The same evening A made a complete confession of the theft, and thus the success of the experiment was confirmed.

I maintain that such a result should be of scientific interest and worthy of consideration. There is much in experimental psychology which is less useful than the material treated in this work. Putting aside altogether the theoretical interest, we have in this case something that is not to be despised from a practical point of view, to wit, we have brought to light the culpable affair in a much easier and shorter way than is customary. What has been possible once or twice ought to be possible again in other cases, and it is well worth while to investigate the means of rendering the method increasingly capable of rapid and sure results.

This applicability of the experiment shows it possible to strike a concealed (indeed an unconscious) complex by means of a stimulus word; and conversely we may assume with great certainty that behind a reaction which shows a complex indicator there is a hidden complex, even though the test person strongly denies it. One must get rid of the idea that educated and intelligent test persons are able to see and admit their own complexes. Every human mind contains much that is unacknowledged and hence unconscious as such; and no one can boast that he stands completely above his complexes. Those who persist in maintaining it do not see the spectacles which they wear on their noses.

It has long been thought that the association experiment

enables one to distinguish certain *intellectual* types. That is not the case. The experiment does not give us any particular insight into the purely intellectual, but rather only into the emotional processes. To be sure we can erect certain types of reaction; they are not, however, based on intellectual peculiarities, but depend entirely on the *proportionate emotional state*. Educated test persons usually show superficial and linguistically deep rooted associations, whereas the uneducated form more valuable associations and often of ingenious significance. This behavior would be paradoxical from an intellectual viewpoint. The meaningful associations of the uneducated are not really the product of intellectual thinking, but are simply the results of a special emotional state. The whole thing is more important to the uneducated, his emotion is greater and for that reason he pays more attention to the experiment than the educated person, and that is why his associations are more significant. Aside from the types determined by education we have to consider three principal individual types:

1. An objective type with undisturbed reactions.
2. A so-called complex type with many disturbances in the experiment occasioned by the constellation of a complex.
3. A so-called definition-type. This type consists in the fact that the reaction always gives an explanation or a definition of the content of the stimulus word; *e. g.:*

apple,—a tree-fruit;  
table,—a piece of household furniture;  
to promenade,—an activity;  
father,—chief of the family.

This type is chiefly found in stupid persons, and it is therefore quite usual in imbecility. But it can also be found in persons who are not really stupid, but who do not wish *to be taken as stupid*. Thus a young student from whom associations were taken by an older intelligent woman student reacted altogether with definitions. The test person was of the opinion that it was an examination in intelligence, and therefore directed most of his attention to the significance of the stimulus words; his associations, therefore, looked like those of an idiot. Not all idiots, however, react with definitions; probably only those so react who would like to appear smarter than they are, that is, those to whom their stupidity is painful. I designate this widespread complex as "intelligence-complex." A normal test person reacts in a most overdrawn manner as follows:

anxiety—heart anguish;  
to kiss—love's unfolding;  
to kiss—perception of friendship.

This type gives a constrained and unnatural impression. The test persons wish to be more than they are, they wish to

exert more influence than they really have. Hence we see that persons with an intelligence complex are usually not natural and unconstrained; that they are always somewhat unnatural and flowery; they show a predilection for complicated foreign words, high sounding quotations, and other intellectual ornaments. In this way they wish to influence their fellow beings, they wish to impress others with their apparent education and intelligence, and thus to compensate for the painful feeling of stupidity. The definition type is closely related to the predicate type, or to express it more precisely, to the predicate type expressing personal judgment (*Wertprädikat-typus*). For example:

flower—pretty;  
money—convenient;  
animal—ugly;  
knife—dangerous;  
death—ghastly.

In the definition type the intellectual significance of the stimulus word is rendered prominent, while in the predicate type it is its *emotional significance*. There are predicate types which are altogether overdrawn where there appear reactions like the following:

piano—horrible;  
to sing—heavenly;  
mother—ardently loved;  
father—something good, nice, holy.

In the definition type an absolute *intellectual* make-up is manifested or rather simulated, but here there is a very *emotional* one. Yet, just as the definition type really conceals a lack of intelligence so the excessive *emotional* expression conceals or overcompensates an emotional deficiency. This conclusion is very interestingly illustrated by the following discovery:—On investigating the influence of the familiar milieus on the association type it was found that young individuals seldom possess a predicate type, but that on the other hand, the predicate type increases in frequency with the advancing age. In women the increase of the predicate type begins a little after the 40th year, and in men after the 60th. That is the precise time when, owing to the deficiency of sexuality, there actually occurs considerable emotional loss. If a test person evinces a distinct predicate type it may always be inferred that a marked internal emotional deficiency is thereby compensated. Still one cannot reason conversely, namely that an inner emotional deficiency must produce a predicate type, no more than that idiocy directly produces a definition type. A predicate type can also betray itself through the external behavior, as, for example, through a particular affectation, enthusiastic exclamations, an embellished behavior, and the constrained sounding language so often observed in society.

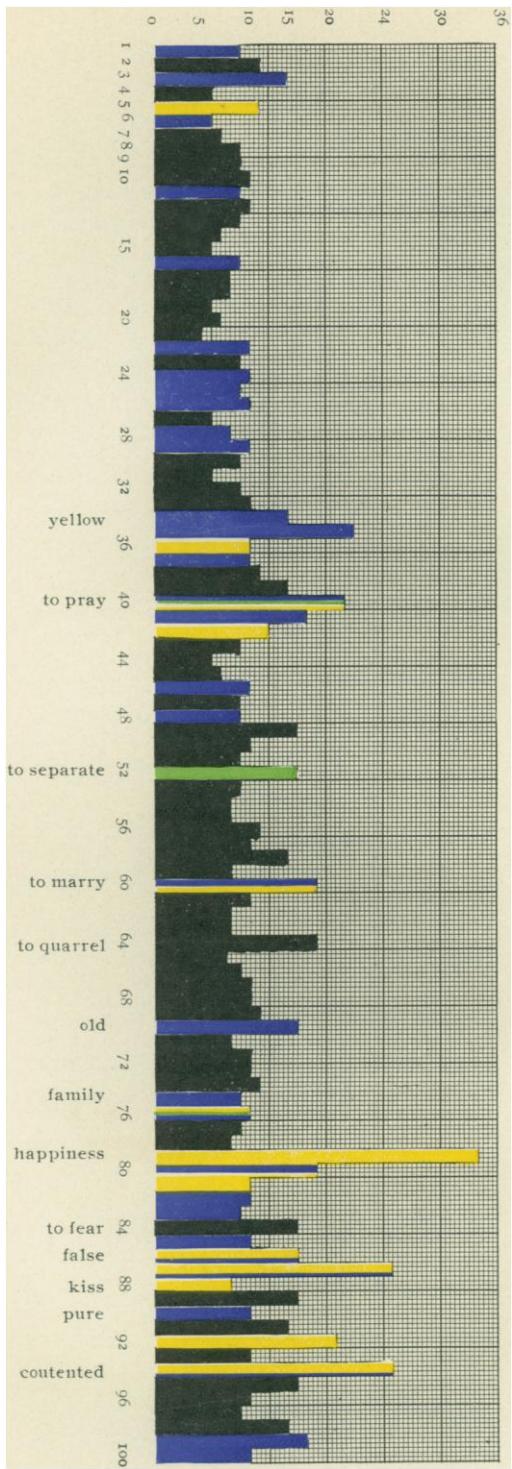
The complex type shows no particular tendency except the *concealment* of a complex, whereas the definition and predicate types betray a positive tendency to exert in some way a *definite* influence on the experimenter. But whereas the definition type tends to bring to light its intelligence, the predicate type displays its emotion. I need hardly add of what importance such determinations are for the diagnosis of character.

After finishing an association experiment I usually add another experiment of a different kind, the so-called *reproduction*. I repeat the same stimulus words and ask the test persons whether they still remember their former reactions. In many instances the memory fails, and as experience shows, these locations are stimulus words which touched an emotionally accentuated complex, or stimulus words immediately following such critical words.

This phenomenon has been designated as paradoxical and contrary to all experience. For it is known that emotionally accentuated things are better retained in memory than indifferent things. This is quite true, but it does not hold for the *linguistic* expression of an emotionally accentuated content. On the contrary one very easily forgets what he has said under emotion, one is even apt to contradict himself about it. Indeed the efficacy of cross-examinations in court depends on this fact. The reproduction method therefore serves to render still more prominent the complex stimulus. In normal persons we usually find a limited number of false reproductions, seldom more than 10-20%, while in abnormal persons, especially in hysterics, we often find from 20-40% of false reproductions. The reproduction certainty is therefore in certain cases a measure for the emotivity of the test person.

By far the larger number of neurotics show a pronounced tendency to cover up their intimate affairs in impenetrable darkness, even from the doctor, so that the doctor finds it very difficult to form a proper picture of the patient's psychology. In such cases I am greatly assisted by the association experiment. When the experiment is finished I first look over the general course of the reaction times. I see a great many very prolonged times which in itself means that the patient can only adjust himself with difficulty, that his psychological functions proceed with marked internal frictions, with *resistances*. By far the greater number of neurotics react only under great and hence very distinct resistances, there are, however, cases in which the average reaction times are as short as in the normal and in whom the other complex indicators are lacking, but who, despite that fact, undoubtedly present neurotic symptoms. These rare cases are especially found among very intelligent

For the stimulus words corresponding to the numbers see the formulary on the first and second pages of Lecture I.



and educated chronic patients who after many years of practice have learned to control their outward behavior and therefore outwardly display very little if anything of their neuroses. On superficial observation they can be taken as normal, yet in some places they show disturbances which betray the repressed complex.

After examining the reaction times I turn my attention to the type of the association to ascertain with what type I am dealing. If it is a predicate type I draw the conclusions which I have detailed above; if it is a complex type I try to ascertain the nature of the complex. With the necessary experience one can readily emancipate himself from the test person's statements and almost without any previous knowledge of the test persons it is possible under certain circumstances to read the most intimate complexes from the results of the experiment. I at first look for the reproduction words and put them together, and I then look for the stimulus words which show the greatest disturbances. In many cases a mere assortment of these words suffices to show the complex. In some cases it is necessary to put a question here and there. It will be best to illustrate this with a concrete example :

It concerns an educated woman of 30 years who has been married for three years. After her marriage she suffers from episodic excitements in which she is violently jealous of her husband. The marriage is a happy one in every other respect and it should be noted that the husband gives no cause for the jealousy. The patient is sure that she loves him and that her excited states are groundless. She cannot imagine whence these excited states originate, and feels quite perplexed over them. It is to be noted that the patient is a catholic and has been brought up religiously, while her husband is a protestant. This difference of religion did not admittedly play any part. A more thorough anamnesis showed the existence of an extreme prudishness. Thus, for example, no one was allowed to talk in the patient's presence about her sister's childbirth, because the sexual moment suggested therein caused her the greatest excitement. She always undressed in the adjoining room and never in her husband's presence, etc. At the age of 27 she was supposed to have had no idea how children were born. The associations gave the results shown in the accompanying chart.

The blue columns represent failures of reproductions, the green ones represent repetitions of stimulus words, and the yellow columns show those associations in which the patient either laughed or made mistakes, using many instead of one word. The height of the columns represent the length of the reaction time.

The stimulus words characterized by marked disturbances are the following: yellow, to pray, to separate, to marry, to quarrel, old, family, happiness, false, fear, to kiss, bride, to choose, contented. The strongest disturbances are found in the following stimulus words: *to pray, to marry, happiness, false, fear, and contented*. These words, therefore, seemingly strike the complex above all. The conclusion that can be drawn from this is that she is not indifferent to the fact that her husband is a protestant, for she again thinks of praying, that there is something wrong with marriage, that she is false, that is, she entertains fancies of faithlessness, she is afraid (of the husband? of the future?), she is not contented with her choice (to choose) and she thinks of separation. The patient therefore has a separation complex for she is very discontented with her married life. When I told her this result she was affected and at first attempted to deny it, then to mince over it, but finally she admitted everything I said and added still more. She reproduced a large number of fancies of faithlessness, reproaches against her husband, etc. *Her prudishness and jealousy were merely a projection of her own sexual wishes on her husband.* Because she was faithless in her fancies and did not admit it to herself she was jealous of her husband.

It is impossible in a lecture to give a review of all the possible uses of the association experiment. I must content myself with having demonstrated to you at least some of its chief uses.

## LECTURE II

### THE FAMILIAR CONSTELLATIONS

Ladies and Gentlemen: As you have seen, there are manifold ways in which the association experiment may be employed in practical psychology. I should like to speak to you to-day about another utilization of this experiment which is primarily of only theoretical significance. My pupil, Miss Fürst, M. D., has made the following research: she has applied the association experiment to 24 families, consisting altogether of 100 test persons; the resulting material amounted to 2,200 associations. This material was elaborated in the following manner: Fifteen separate groups were formed according to logical-linguistic standards, and the associations were arranged as follows:

|  | Husband | Wife | Difference |
|--|---------|------|------------|
| I. Co-ordination                             | 6.5     | 0.5  | 6          |
| II. Sub and supraordination                  | 7       | —    | 7          |
| III. Contrast                                | —       | —    | —          |
| IV. Predicate expressing a personal judgment | 8.5     | 95.  | 86.5       |
| V. Simple predicate                          | 21.     | 3.5  | 17.5       |

|  | Husband | Wife      | Difference |
|--|---------|-----------|------------|
| VI. Relations of the verb to the subject or complement | 15.5    | 0.5       | 15.        |
| VII. Designation of time, etc.                         | 11.     | -         | 11.        |
| VIII. Definition                                       | 11.     | -         | 11.        |
| IX. Coexistence  | 1.5     | -         | 1.5        |
| X. Identity  | 0.5     | 0.5       | -          |
| XI. Motor-speech combination                           | 12.     | -         | 12         |
| XII. Composition of words                              | -       | -         | -          |
| XIII. Completion of words                              | -       | -         | -          |
| XIV. Clang associations                                | -       | -         | -          |
| XV. Defective reactions                                | -       | -         | -          |
| <br>Total,   | <br>-   | <br>-     | <br>173.5  |
|  |         | <br>173.5 | <br>= 11.5 |
| Average difference                                     | 15      |           |            |

As can be seen from this example, I utilize the difference to show the degree of the analogy. In order to find a base for the total resemblance I have calculated the differences among all of Miss Fürst's test persons not related among themselves by comparing every female test person with all the other unrelated females; the same has been done for the male test persons.

The most marked difference is found in those cases where the two test persons compared have no associative quality in common. All the groups are calculated in percentages, the greatest difference possible being  $\frac{200}{15} = 13.3\%$ .

I. The average difference of male unrelated test persons is 5.9%, and that of females of the same group is 6%.

II. The average difference between male related test persons is 4.1%, and that between female related test persons is 3.8%. From these numbers we see that relatives show a tendency to agreement in the reaction type.

III. Difference between fathers and children = 4.2.  
" " " mothers " " = 3.5.

The reaction types of children come nearer to the type of the mother than to the father.

IV. Difference between fathers and their sons = 3.1.

" " " " " daughters = 4.9.  
" " " mothers " " sons = 4.7.  
" " " " " daughters = 3.0.

V. Difference between brothers = 4.7.

" " " sisters = 5.1.

If the married sisters are omitted from the comparison we get the following result:

Difference of unmarried sisters = 3.8.

These observations show distinctly that marriage destroys more or less the original agreement, as the husband belongs to a different type.

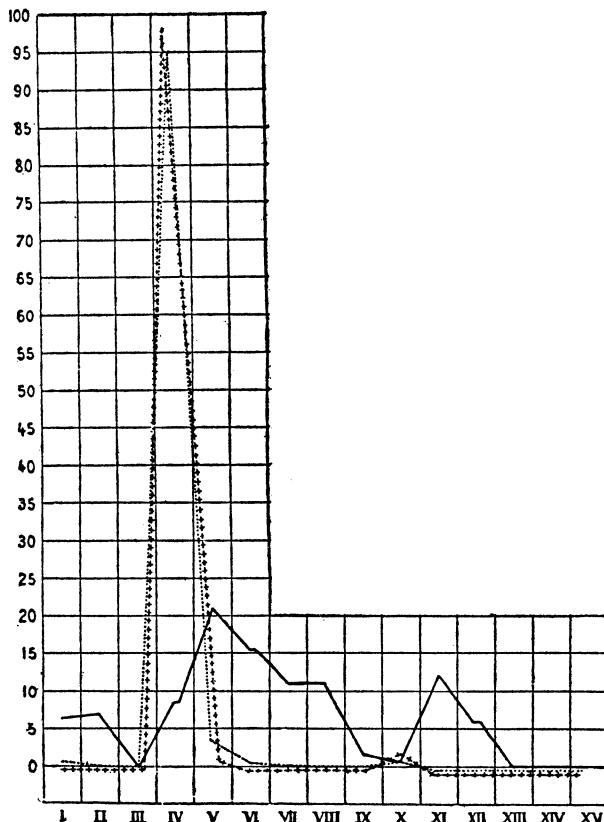
The difference between unmarried brothers = 4.8.

Marriage seems to exert no influence on the association forms in man. Nevertheless, the material which we have at our disposal is not as yet enough to allow us to draw definite conclusions.

VI. The difference between husband and wife = 4.7. This number, however, sums up very inadequately the different values; that is, there are some cases which show a marked difference and some which show a marked agreement.

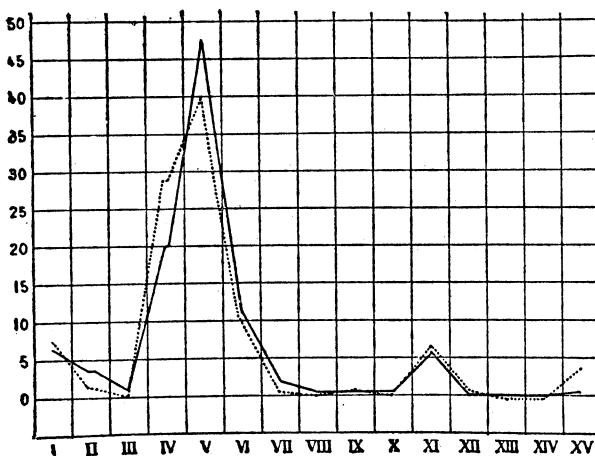
The description in curves of the different results follows.

In the curves here reproduced I have marked above the number of associations of each quality in percentages. The Roman letters written below the diagram designate the forms of association indicated in the above tables (see above).



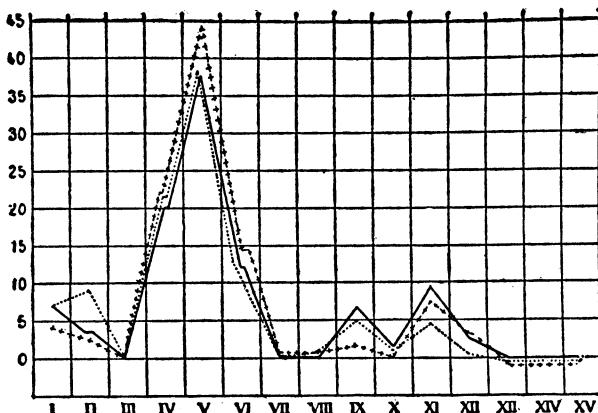
Curve A. —— father; .... mother; +++++ daughter.  
 I. Assoc. by co-ordination; II. sub and supraordination; III. contrast, etc. (See above table.)

Curve A. The father (continued line) shows an objective type, while the mother and daughter show the pure predicate type with a pronounced subjective tendency.



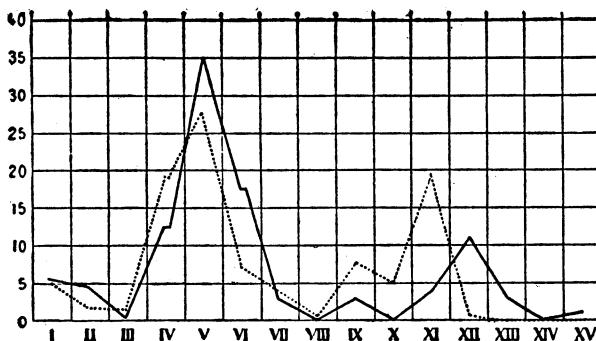
Curve B. — husband; ..... wife.

Curve B. The husband and wife agree well in the predicate objective type, the predicate subjective being somewhat more numerous in the wife.



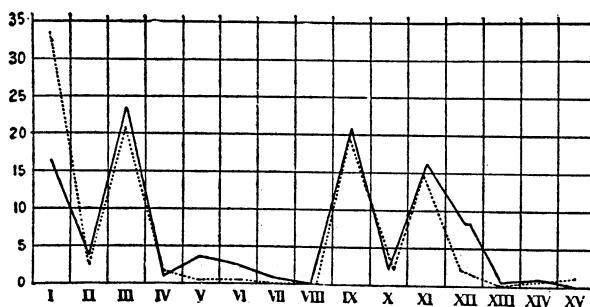
Curve C. — father; ..... 1st daughter; + + + 2nd daughter.

Curve C. A very nice agreement between a father and his two daughters.



Curve D. — single sister; ..... married sister.

Curve D. Two sisters living together. The dotted line represents the married sister.



Curve E. — husband; ..... wife.

Curve E. Husband and wife. The wife is a sister of the two women of curve D. She approaches very closely to the type of her husband. Her curve is the direct opposite of that of her sisters.

The similarity of the associations is often very extraordinary. I will reproduce here the associations of a mother and her daughter.

| Stimulus Word    | Mother         | Daughter          |
|------------------|----------------|-------------------|
| to pay attention | diligent pupil | pupil             |
| law              | command of God | Moses             |
| dear             | child          | father and mother |
| great            | God            | father            |
| potato           | bulbous root   | bulbous root      |
| family           | many persons   | 5 persons         |
| strange          | traveller      | traveller         |
| brother          | dear to me     | dear              |
| to kiss          | mother         | mother            |

| Stimulus word | Mother      | Daughter |
|---------------|-------------|----------|
| burn          | great pain  | painful  |
| door          | wide        | big      |
| hay           | dry         | dry      |
| month         | many days   | 31 days  |
| air           | cool        | moist    |
| coal          | sooty       | black    |
| fruit         | sweet       | sweet    |
| merry         | happy child | child    |

One might indeed think that in this experiment, where full scope is given to chance, individuality would become a factor of the utmost importance, and that therefore one might expect a very great diversity and lawlessness of associations. But as we see the opposite is the case. Thus the daughter lives contently in the same circle of ideas as her mother, not only in her thought but in her form of expression; indeed, she even uses the same words. What seems more flighty, more inconstant, and more lawless than a fancy, a rapidly passing thought? It is not, however, lawless, and not free, but closely determined within the limits of the milieu. If, therefore, even the superficial and manifestly most flighty formations of the intellect are altogether subject to the milieu-constellation, what should we expect for the more important conditions of the mind, for the emotions, wishes, hopes, and intentions? Let us consider a concrete example,—the curve A. (See above.)

The mother is 45 years old and the daughter 16 years. Both have a very distinct predicate type expressing personal judgment, and differ from the father in the most striking manner. The father is a drunkard and a demoralized creature. We can thus readily understand that his wife perceives an emotional voidness which she naturally betrays by her enhanced predicate type. The same causes cannot, however, operate in the daughter, for in the first place she is not married to a drunkard, and secondly life with all its hopes still lies before her. It is distinctly unnatural for the daughter to show an extreme predicate type expressing personal judgment. She responds to the stimuli of the environment just like her mother. But whereas in the mother the formation is in a way a natural consequence of her unhappy condition of life, this condition is entirely lacking in the daughter. The daughter simply imitates the mother; she merely appears like the mother. Let us consider what this can signify for a young girl. If a young girl reacts to the world like an old woman disappointed in life this at once shows unnaturalness and constraint. But more serious consequences are possible. As you know the predicate type is a manifestation of intensive emotions; emotions are always involved. Thus we cannot prevent ourselves from answering at least inwardly to the feelings and passions of our

nearest environment; we allow ourselves to be infected and carried away by it. Originally the affects and their physical manifestations had a biological significance; *i. e.*, they were a protective mechanism for the individual and the whole herd. If we manifest emotions we can with certainty expect to receive emotions in return. That is the sense of the predicate type. What the 45-year-old woman lacks in emotions; *i. e.*, in love in her marriage relations she seeks to obtain from the outside, and it is for that reason that she is an ardent participant in the Christian Science meetings. If the daughter imitates this situation she does the same thing as her mother, she seeks to obtain emotions from the outside. But for a girl of 16 such an emotional state is to say the least quite dangerous; like her mother she reacts to her environment as a sufferer soliciting sympathy. Such an emotional state is no longer dangerous in the mother, but for obvious reasons it is quite dangerous in the daughter. Once freed from her father and mother she will be like her mother; *i. e.*, she will be a suffering woman craving for inner gratification. She will thus be exposed to the greatest danger of falling a victim to brutality and of marrying a brute and inebriate like her father.

This consideration seems to me to be of importance for the conception of the influence of environment and education. The example shows what passes over from the mother to the child. It is not the good and pious precepts, nor is it any other inculcation of pedagogic truths that have a moulding influence upon the character of the developing child, but what most influences him is the peculiarly affective state which is totally unknown to his parents and educators. The concealed discord between the parents, the secret worry, the repressed hidden wishes, all these produce in the individual a certain affective state with its objective signs which slowly but surely, though unconsciously, works its way into the child's mind, producing therein the same conditions and hence the same reactions to external stimuli. We know that association with mournful and melancholic persons will depress us, too. A restless and nervous individual infects his surroundings with unrest and dissatisfaction, a grumbler, with his discontent, etc. If grown-up persons are so sensitive to such surrounding influences we certainly ought to expect more of this in the child whose mind is as soft and plastic as wax. The father and mother impress deeply into the child's mind the seal of their personality, the more sensitive and mouldable the child the deeper is the impression. Thus even things that are never spoken about are reflected in the child. The child imitates the gesture, and just as the gesture of the parent is the expression of an emotional state, so in turn the gesture gradually produces in the child a

similar feeling, as it feels itself, so to speak, into the gesture. Just as the parents adapt themselves to the world so does the child. At the age of puberty when it begins to free itself from the spell of the family, it enters into life with so to say a surface of fracture entirely in keeping with that of the father and mother. The frequent and often very deep *depressions of puberty* emanate from this; they are symptoms which are rooted in the difficulty of new adjustment. The youthful person at first tries to separate himself as much as possible from his family, he may even estrange himself from it, but inwardly this only ties him the more firmly to the parental image. I recall the case of a young neurotic who ran away from his parents, he was strange and almost hostile to them, but he admitted to me that he possessed a special sanctum; it was a strong box containing his old childhood books, old dried flowers, stones, and even small bottles of water from the well at his home and from a river along which he walked with his parents, etc.

The first attempts to assume friendship and love are constellated in the strongest manner possible by the relation to parents, and here one can usually observe how powerful are the influences of the familiar constellations. It is not rare, *e.g.*, for a healthy man whose mother was hysterical to marry a hysterical, or for the daughter of an alcoholic to choose an alcoholic for her husband. I was once consulted by an intelligent and educated young woman of 26 who suffered from a peculiar symptom. She thought that her eyes now and then took on a strange expression which exerted a disagreeable influence on men. If she then looked at a gentleman he became embarrassed, turned away and said something rapidly to his neighbor, at which both were either embarrassed or inclined to laugh. The patient was convinced that her look excited indecent thoughts in the men. It was impossible to convince her of the falsity of her conviction. This symptom immediately aroused in me the suspicion that I dealt with a case of paranoia rather than with a neurosis. But as was shown only three days later by the further course of the treatment, I was mistaken, for the symptom promptly disappeared after it had been explained by analysis. It originated in the following manner: The lady had a lover who deserted her in a very striking manner. She felt utterly forsaken, she withdrew from all society and pleasure, and entertained suicidal ideas. In her seclusion there accumulated unadmitted and repressed erotic wishes which she unconsciously projected on men whenever she was in their company. This gave rise to her conviction that her look excited erotic wishes in men. Further investigation showed that her deserting lover was alunatic, which she did not apparently observe. I expressed my surprise at her unsuitable choice and added

that she must have had a certain predilection for loving mentally abnormal persons. This she denied, stating that she had once before been engaged to be married to a normal man. He, too, deserted her; and on further investigation it was found that he, too, had been in an insane asylum shortly before,—another lunatic! This seemed to me to confirm with sufficient certainty my belief that she had an unconscious tendency to choose insane persons. Whence originated this strange taste? Her father was an eccentric character, and in later years entirely estranged from his family. Her whole love had therefore been turned away from her father to a brother 8 years her senior; him she loved and honored as a father, and this brother became hopelessly insane at the age of 14. That was apparently the model from which the patient could never free herself, after which she chose her lovers, and through which she had to become unhappy. Her neurosis which gave the impression of insanity probably originated from this infantile model. We must take into consideration that we are dealing in this case with a highly educated and intelligent lady who did not pass carelessly over her mental experiences, who indeed reflected much over her unhappiness without, however, having any idea whence her misfortune originated.

These are things which inwardly appeal to us as matter of course, and it is for this reason that we do not see them but attribute everything to the so-called congenital character. I could cite any number of examples of this kind. Every patient furnishes contributions to this subject of the determination of destiny through the influence of the familiar milieus. In every neurotic we see how the constellation of the infantile milieu influences not only the character of the neurosis but also life's destiny, in its very details. Numberless unhappy choices of profession and matrimonial failures can be traced to this constellation. There are, however, cases where the profession has been happily chosen, where the husband or wife leaves nothing to be desired, and where still the person does not feel well but works and lives under constant difficulties. Such cases often appear in the guise of chronic neurasthenia. Here the difficulty is due to the fact that the mind is unconsciously split into two parts of divergent tendencies which are impeding each other; one part lives with the husband or with the profession, while the other lives unconsciously in the past with the father or mother. I have treated a lady who, after suffering many years from a severe neurosis, merged into a dementia *præcox*. The neurotic affection began with her marriage. This lady's husband was kind, educated, well to do, and in every respect suitable for her; his character showed nothing that would in any way in-

terfere with a happy marriage. Despite that the marriage was an unhappy one merely because the wife was neurotic and therefore prevented all congenial companionship.

The important heuristic axiom of every psychanalysis reads as follows: *If a neurosis springs up in a person this neurosis contains the counter-argument against the relationship of the patient to the personality with which he is most intimately connected.* If the husband has a neurosis the neurosis thus loudly proclaims that he has intensive resistances and contrary tendencies against his wife, and if the wife has a neurosis the wife has a tendency which diverges from her husband. If the person is unmarried the neurosis is then directed against the lover or the sweetheart or against the parents. Every neurotic naturally strives against this relentless formulation of the content of his neurosis, and he often refuses to recognize it at any cost, but still it is always justified. To be sure the conflict is not on the surface but must generally be revealed through a painstaking psychanalysis.

The history of our patient reads as follows:

The father had a powerful personality. She was his favorite daughter and entertained for him a boundless veneration. At the age of 17 she for the first time fell in love with a young man. At that time she had twice the same dream, the impression of which never left her in all her later years; she even imputed to it a mystic significance and often recalled it with religious dread. In the dream she saw a tall, masculine figure with a very beautiful white beard; at this sight she was permeated with a feeling of awe and delight as if she experienced the presence of God himself. This dream made the deepest impression on her, and she was constrained to think of it again and again. The love affair of that period proved to be one of little warmth and was soon given up. Later the patient married her present husband. Though she loved her husband she was led continually to compare him with her deceased father; this comparison always proved unfavorable to her husband. Whatever the husband said, intended, or did, was subjected to this standard and always with the same result: "My father would have done all this better and differently." Our patient's life with her husband was not happy, she could neither respect nor love him sufficiently; she was inwardly dissatisfied and unsatiated. She gradually evinced a fervent piety, and at the same time there appeared a violent hysterical affection. She began by going into raptures now over this and now over that clergyman, she was looking everywhere for a spiritual friend, and estranged herself more and more from her husband. The mental trouble made itself manifest after about a decade. In her diseased state she refused to have

anything to do with her husband and child; she imagined herself pregnant by another man. In brief, the resistances against her husband which hitherto had been laboriously repressed came out quite openly, and among other things manifested themselves in insults of the gravest kind directed against her husband.

In this case we see how a neurosis appeared, as it were at the moment of marriage, *i. e.*, *this neurosis expresses the counter-argument against the husband*. What is the counter-argument? The counter-argument is the father of the patient, for she verified daily her belief that her husband was not equal to her father. When the patient first fell in love there also appeared a symptom in the form of a very impressive visionary dream. She saw the man with the very beautiful white beard. Who was this man? On directing her attention to the beautiful white beard she immediately recognized the phantom. It was of course her father. Thus every time the patient merged into a love affair the picture of the father inopportunistically appeared and prevented her from adjusting herself psychologically to her husband.

I purposely chose this case as an illustration because it is simple, obvious, and quite typical of many marriages which are crippled through the neurosis of the wife. The unhappiness always lies in a too firm attachment to the parents. The offspring remains in the infantile relations. We can find here one of the most important tasks of pedagogy, namely, the solution of the problem how to free the growing individual from his unconscious attachments to the influences of the infantile milieu, in such a manner that he may retain whatever there is in it that is suitable and reject whatever is unsuitable. To solve this difficult question on the part of the child seems to me impossible at present. We know as yet too little about the child's emotional processes. The first and only real contribution to the literature on this subject has in fact appeared during the present year. It is the analysis of a five-year-old boy published by Freud.

The difficulties on the part of the child are very great. They should not, however, be so great on the part of the parents. In many ways the parents could manage more carefully and more indulgently the love of children. The sins committed against favorite children by the undue love of the parents could perhaps be avoided through a wider knowledge of the child's mind. For many reasons I find it impossible to tell you anything of general validity concerning the bringing up of children as it is affected by this problem. We are as yet very far from general prescriptions and rules; are still in the realm of casuistry. Unfortunately our knowledge of the finer

mental processes in the child is so meagre that we are after all not in any position to say where the greater trouble lies, whether in the parents, in the child, or in the conception of the milieu. Only psychanalyses of the kind that Professor Freud has published in our *Jahrbuch*, 1909, will help us out of this difficulty. Such comprehensive and profound observations should act as a strong inducement to all teachers to occupy themselves with Freud's psychology. This psychology offers more for practical pedagogy than the physiological psychology of the present.

### LECTURE III

#### EXPERIENCES CONCERNING THE PSYCHIC LIFE OF THE CHILD

Ladies and Gentlemen: In the last lecture we have seen how important for later life are the emotional processes of childhood. In to-day's lecture I should like to give you some insight into the psychic life of the child through the analysis of a 4-year-old girl. It is much to be regretted that there are doubtless few among you who have had opportunity to read the analysis of "Little John" (*Kleiner Hans*), which has been published by Freud during the current year.<sup>1</sup> I should properly begin by giving you the content of that analysis, so that you might be in a position to compare for yourselves the results of Freud with those obtained by me, and to observe the marked, even astonishing, similarity between the unconscious creations of the two children. Without a knowledge of the fundamental analysis of Freud, much in the report of the following case will appear to you strange, incomprehensible, and perhaps unacceptable. I beg you, however, to defer final judgment and to enter upon the consideration of these new subjects with a kindly disposition, for such pioneer work in virgin soil requires not only the greatest patience on the part of the investigator, but also the unprejudiced attention of his audience. Because the Freudian investigations apparently involve an indelicate discussion of the most intimate secrets of sexuality many people have had a feeling of repulsion and have therefore rejected everything as a matter of course without any real proof. This, unfortunately, has almost always been the fate of Freud's doctrines until now. One must not come to the consideration of these matters with the firm conviction that they do not exist, else it may easily come to pass that for the prejudiced they really do not exist. One should perhaps for the moment assume the author's point of view and investigate these phenomena under his guidance. In this way only can

<sup>1</sup>*Jahrbuch f. Psychoanalytische und Psychopathologische Forschungen*, Band I, Deuticke, Wien.

the correctness or incorrectness of our observations be affirmed. We may err, as all human beings err. But the continual holding up to us of our mistakes,—perhaps they are worse than mistakes,—does not help us to see things more distinctly. We should prefer to see *wherein* we err. That should be shown to us in our own sphere of experience. Thus far, however, no one has succeeded in meeting us on our own ground, and in giving us a different conception of the things which we ourselves see. We must still complain that our critics are persisting in complete ignorance and without the slightest notion about the matters in question. The only reason for this is that our critics have never taken the trouble to become thoroughly acquainted with our method; had they done this they would have understood us.

The little girl to whose sagacity and intellectual vivacity we are indebted for the following observations is a healthy, lively child of emotional temperament. She has never been seriously ill, and never, even in the realm of the nervous system, had there been observed any symptoms prior to this investigation. In the report which will now follow we shall have to waive a connected description, for it is made up of anecdotes which treat of one out of a whole cycle of similar experiences, and which cannot, therefore, be arranged scientifically and systematically, but must rather be described somewhat in the form of a story. This manner of description we cannot as yet dispense with in our analytic psychology, for we are still far from being able in all cases to separate with unerring certainty the curious from the typical.

When the little daughter, whom we will call Anna, was about 3 years old, she once had the following conversation with her grandmother:

Anna: "Grandma, why have you such withered eyes?"

Grandma: "Because I am old?"

A. "But you will become young again."

G. "No, do you know, I shall become older and older, and then I shall die."

A. "Well, and then?"

G. "Then I shall become an angel."

A. "And then will you again become a little child?"

The child found here a welcome opportunity for the provisional solution of a problem. For some time before she had been in the habit of asking her mother whether she would ever have a living doll, a little child, a little brother. This naturally included the question as to the origin of children. As such questions appeared only spontaneously and indirectly, the parents attached no significance to them, but received

them as lightly and in appearance as facetiously as the child seemed to ask them. Thus she once received from her father the amusing information that children are brought by the stork. Anna had already heard somewhere a more serious version, namely, that children are little angels living in heaven and are brought from heaven by the stork. This theory seems to have become the starting point for the investigating activity of the little one. From the conversation with the grandmother it could be seen that this theory was capable of wide application, namely, it not only solved in a comforting manner the painful idea of parting and dying, but at the same time it solved satisfactorily the riddle of the origin of children. Such solutions which kill at least two birds with one stone were formerly tenaciously adhered to in science, and even in the child they cannot be made retrograde without some shock.

Just as was the birth of a little sister the turning point in the history of "little John," so it was in this case the birth of a brother, which happened when Anna had reached the age of 4 years. The pregnancy of the mother apparently remained unnoticed; *i. e.*, the child never expressed herself on this subject. On the evening before the childbirth when the labor pains began to manifest themselves in the mother, the child was in her father's room. He took her on his knee and said, "Tell me, what would you say if you should get a little brother to-night?" "I would kill it," was the prompt answer. The expression "to kill" looks very serious, but in reality it is quite harmless, for "to kill" and "to die" in child language signify only to remove either in the active or in the passive sense, as has already been pointed out a number of times by Freud. "To kill" as used by the child is a harmless word, especially so when we know that the child uses the word "kill" quite promiscuously for all possible kinds of destruction, removal, demolition, etc. It is, nevertheless, worth while to note this tendency (see the analysis of *Kleiner Hans*, p. 5).

The childbirth occurred early in the morning in the presence of a physician and a midwife. When all remnants of the birth, including some blood traces, were cleaned up, the father entered the room where the little one slept. She awoke as he entered. He imparted to her the news of the advent of a little brother which she took with surprise and strained facial expression. The father took her in his arms and carried her into the confinement chamber. She first threw a rapid glance at her somewhat pale mother and then displayed something like a mixture of despair and suspicion as if thinking, "Now what else is going to happen? (Father's impression.) She displayed hardly any pleasure at the sight of the new arrival, so that the cool reception she gave it caused general disappointment.

During the forenoon she kept very noticeably away from her mother; this was the more striking as she was usually much attached to her mother. But once when her mother was alone she ran into the room, embraced her and said, "Well, are n't you going to die now?" This explains a part of the conflict in the child's psyche. Though the stork theory was never really taken seriously, she accepted the fruitful re-birth hypothesis, according to which a person by dying assisted a child into life. Accordingly the mother, too, must die; why, then, should the newborn child, against whom she already felt childish jealousy, cause her pleasure? It was for this reason that she had to ascertain in a favorable moment whether the mother was to die, or rather was moved to express the hope that she would not die.

With this happy issue, however, the re-birth theory sustained a severe shock. How was it possible now to explain the birth of her little brother and the origin of children in general? There still remained the stork theory which, though never expressly rejected, had been implicitly waived through the assumption of the re-birth theory. The explanations next attempted unfortunately remained hidden from the parents as the child stayed a few weeks with her grandmother. From the grandmother's report we learned that the stork theory was often discussed, and it was naturally re-enforced by the concurrence of those about her.

When Anna returned to her parents she again on meeting her mother evinced the same mixture of despair and suspicion which she had displayed after the birth. The impression, though inexplicable, was quite unmistakable to both parents. Her behavior towards the baby was very nice. During her absence a nurse had come into the house who, on account of her uniform made a deep impression on Anna; to be sure, the impression at first was quite unfavorable as she evinced the greatest hostility to her. Thus nothing could induce her to allow herself to be undressed and put to sleep by this nurse. Whence this resistance originated was soon shown in an angry scene near the cradle of the little brother in which Anna shouted at the nurse, "This is not your little brother, it is mine!" Gradually, however, she became reconciled to the nurse and began to play nurse herself, she had to have her white cap and apron and "nursed" now her little brother and now her doll.

In contrast to her former mood she became unmistakably mournful and dreamy. She often sat for a long time under the table singing and rhyming stories which were partially incomprehensible but sometimes contained the "nurse" theme ("I am a nurse of the green cross"). Some of the stories, how-

ever, distinctly showed a painful feeling striving for expression.

Here we meet with a new and important feature in the little one's life, that is, we meet with reveries, tendencies towards the composition of poetry, and melancholic attacks. All these things which we are wont first to encounter at a later period of life, at a time when the youthful person is preparing to sever the family tie and to enter independently upon life, but is still held back by an inward, painful feeling of homesickness and the warmth of the parental hearth. At that time the youth begins to replace his longing with poetic fancies in order to compensate for the deficiency. To approximate the psychology of a four-year-old child to that of the age of puberty will at first sight seem paradoxical, the relationship lies, however, not in the age but rather in the mechanism. The elegiac reveries express the fact that a part of that love which formerly belonged and should belong to a real object is now *introverted*, that is, it is turned inward into the subject and there produces an increased imaginative activity. What is the origin of this *introversion*? Is it a psychological manifestation peculiar to this age, or does it owe its origin to a conflict?

This is explained in the following occurrence. It often happened that Anna was disobedient to her mother, she was insolent, saying, "I am going back to grandma."

Mother: "But I shall be sad when you leave me."

Anna: "Oh, but you have the little brother."

The effect which this produced on the mother shows what the little one was really aiming at with her threats to go away again; she apparently wished to hear what her mother would say to her proposal, that is, to see what attitude her mother would actually assume to her, whether her little brother had not crowded her out altogether from her mother's favor. One must, however, give no credence to this little trickster. For the child could readily see and feel that despite the existence of the little brother there was nothing essentially lacking for her in her mother's love. The reproach to which she subjects her mother is therefore unjustified and to the trained ear this is betrayed by a slightly affected tone. Such a tone if unmistakable, shows that it does not expect to be taken seriously and hence it obtrudes itself re-enforced. The reproach as such must also not have been taken seriously by the mother for it was only the forerunner of other and this time more serious resistances. Not long after the previously reported conversation the following scene took place:

Mother: "Come, we are going into the garden now!"

Anna: "You are lying, take care if you are not telling the truth."

M. "What are you thinking of? I always tell the truth."

A. "No, you are not telling the truth."

M. "You will soon see that I am telling the truth; we are going into the garden now."

A. "Indeed, is that true? Is that really true? Are you not lying?"

Scenes of this kind were repeated a number of times. This time the tone was more rude and more penetrating, and at the same time the accent on the word "lie" betrayed something special which the parents did not understand; indeed, at first they attributed too little significance to the spontaneous utterances of the child. In this they merely did what education usually does with official sanction. One usually pays little heed to children in every stage of life; in all essential matters, they are treated as not responsible, and in all unessential matters, they are trained with an automatic precision.

Under resistances there always lies a question, a conflict, of which we hear at later times and on other occasions. But usually one forgets to connect the thing heard with the resistances. Thus, on another occasion Anna put to her mother the following difficult questions:

Anna: "I should like to become a nurse when I grow big, —why did you not become a nurse?"

Mother: "Why, as I have become a mother I have children to nurse anyway."

A. (Reflecting) "Indeed, shall I be a different woman from you, and shall I still speak to you?"

The mother's answer again shows whither the child's question was really directed. Apparently Anna, too, would like to have a child to "nurse" just as the nurse has. Where the nurse got the little child is quite clear. Anna, too, could get a child in the same way if she were big. Why did not the mother become such a plain nurse, that is to say, how did she get a child if not in the same way as the nurse? Like the nurse, Anna, too, could get a child, but how that fact might be changed in the future or how she might come to resemble her mother in respect to getting children is not clear to her. From this resulted the thoughtful question, "Indeed, shall I be a different woman from you? Shall I be different in every respect?" The stork theory evidently had come to naught, the dying theory met a similar fate; hence she now thinks one may get a child in the same way, as, for example, the nurse got hers. She, too, could get one in this natural way, but how about the mother who is no nurse and still has children? Looking at the matter at this point of view, Anna asks: "Why did you not become a nurse?" namely, "why have you not got your child in the natural way?" This peculiar indirect

manner of questioning is typical, and evidently corresponds with the child's hazy grasp of the problem, unless we assume a certain diplomatic uncertainty prompted by a desire to evade direct questioning. We shall later find an illustration of this possibility. Anna is evidently confronted with the question "where does the child come from?" The stork did not bring it; mother did not die; nor did mother get it in the same way as the nurse. She has, however, asked this question before and received the information from her father that the stork brings children; this is positively untrue, she can never be deceived on this point. Accordingly, papa and mama and all the others lie. This readily explains her suspicion at the childbirth and her discrediting of her mother. But it also explains another point, namely, the elegiac reveries which we have attributed to a partial introversion. We know now from what real object love had to be taken and introverted to no purpose, namely, it had to be taken *from the parents* who deceived her and refused to tell her the truth. (What must this be which cannot be uttered? What is going on here?) Such were the parenthetical questions of the child, and the answer was: Evidently this must be something to be concealed, perhaps something dangerous. Attempts to make her talk and to draw out the truth by means of (insidious) questions were futile, she exerted *resistance against resistance*, and the introversion of love began. It is evident that the capacity for sublimation in a 4-year-old child is still too slightly developed to be capable of performing more than symptomatic services. The mind, therefore, depends on another compensation, namely, it resorts to one of the relinquished infantile devices for securing love by force, the most preferred is that of crying and calling the mother at night. This has been diligently practised and exhausted during her first year. It now returns and corresponding to the period of life it has become well determined and equipped with recent impressions. It was just after the earthquakes in Messina, and this event was discussed at the table. Anna was extremely interested in everything, she repeatedly asked her grandma to relate to her how the earth shook, how the houses were demolished and many people lost their lives. After this she had nocturnal fears, she could not remain alone, her mother was forced to go to her and stay with her; otherwise she feared that an earthquake would appear, that the house would fall and kill her. During the day, too, she was much occupied with such thoughts. While walking with her mother she annoyed her with such questions as, "Will the house be standing when we return home? Are you sure there is no earthquake at home? Will papa still be living?" About every stone lying in the road she asked whether it was from an

earthquake. A new building was a house destroyed by the earthquake, etc. She finally even cried out frequently at night that the earthquake was coming and that she heard the thunder. In the evening she had to be solemnly assured that there was no earthquake coming.

Many means of calming her were tried, thus she was told, for example, that earthquakes only exist where there are volcanoes. But then she had to be satisfied that the mountains surrounding the city were not volcanoes. This reasoning gradually caused in the child an eager desire for learning, strong but quite unnatural for her age, which manifested itself in her requiring that all the geological atlases and text-books should be brought her from her father's library. For hours she rummaged through these works looking for pictures of volcanoes and earthquakes, and asking questions continually. We are here confronted by an energetic effort to sublimate the fear into an eager desire for learning, which at this age made a decidedly premature exaction; but, as in many a gifted child which suffers from precisely the same difficulty, many effects of this immature sublimation were surely not to her advantage. For, by favoring sublimation at this age one merely enforces a fragment of neurosis. The root of the eager desire for learning is the *fear* and the *fear is the expression of a converted libido*; that is, it is the expression of *an introversion which henceforth becomes neurotic*, which at this age is neither necessary nor favorable for the development of the child.

Whither this eager desire for learning was ultimately directed is explained by a series of questions which arose almost daily. "Why is Sophie (a younger sister) younger than I?" "Where was Freddy (the little brother) before? Was he in heaven? What was he doing there? Why did he come down just now, why not before?

This state of affairs induced the father to decide that the mother should tell the child when occasion offered *the truth concerning the origin of the little brother*. This having been done Anna soon thereafter asked about the stork. Her mother told her that the story of the stork was not true, but that Freddy grew up in his mother like the flowers in a plant. At first he was very little, and then he became bigger and bigger just like a plant. She listened attentively without the slightest surprise, and then asked, "But did he come out all by himself?"

Mother: "Yes."

Anna: "But he cannot walk!"

Sophie: "Then he crawled out."

Anna, overhearing her little sister's answer,—"Is there a hole here? (pointing to the breast) or did he come out of the mouth? Who came out of the nurse?" She then interrupted

herself and exclaimed, "No, no, the stork brought little brother down from heaven." She soon left the subject and again wished to see pictures of volcanoes. During the evening following this conversation she was calm. The sudden explanation produced in the child a whole series of ideas, which manifested themselves in certain questions. Unexpected perspectives were opened; she rapidly approached the main problem, namely, the question, "*Where did the child come out?*" *Was it from a hole in the breast or from the mouth?* Both suppositions are entirely qualified to form acceptable theories. We even meet with recently married women who still entertain the theory of the hole in the abdominal wall or of the Cæsarean section; this is supposed to betray a very curious form of innocence. But as a matter of fact it is not innocence, as we are always dealing in such cases with infantile sexual activities, which in later life have brought the *vias naturales* into ill repute.

It may be asked where the child got the absurd idea that there is a hole in the breast, or that the birth takes place through the mouth. Why did she not select one of the natural openings existing in the abdomen from which things come out daily? The explanation is simple. Very shortly before, our little one had invited some educational criticism on her mother's part by a heightened interest in both abdominal openings with their remarkable products,—an interest not always in accord with the requirements of cleanliness and decorum. Then for the first time she became acquainted with the exceptional laws of these bodily regions and, being a sensitive child, she soon learned that there was something here to be tabooed. This region, therefore, must not be referred to. Anna had simply shown herself docile and had so adjusted herself to the cultural demands that she thought (at least spoke) of the simplest things last. The incorrect theories substituted for correct laws persisted for years until brusque explanations came from without. It is, therefore, no wonder that such theories, the forming of and adherence to which are favored even by parents and educators should later become determinants of important symptoms in a neurosis, or of delusions in a psychosis, just as I have shown that in dementia præcox<sup>1</sup> what has existed in the mind for years always remains somewhere, though it may be hidden under compensations seemingly of a different kind.

But even before this question, whence the child really comes out, was settled, a new problem obtruded itself; viz., the children come out of the mother, but how is it with the nurse?

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<sup>1</sup>Jung: *The Psychology of Dementia Præcox*, translated by Peter-  
son and Brill. *Journal of Nervous and Mental Diseases*, Monograph  
Series, No. 3.

Did some one come out also in this case? This question was followed by the remark, "No, no, the stork brought down the little brother from heaven." What is there peculiar about the fact that nobody came out of the nurse? We recall that Anna identified herself with the nurse and planned to become a nurse later, for,—she, too, would like to have a child, and she could have one as well as the nurse. But now when it is known that the little brother grew in mama, how is it now?

This disquieting question is averted by a quick return to the stork-angel theory which has never been really believed and which after a few trials is at last definitely abandoned. Two questions, however, remain in the air. The first reads as follows: Where does the child come out? The second, a considerably more difficult one, reads: How does it happen that mama has children while the nurse and the servants do not? All these questions did not at first manifest themselves.

On the day following the explanation while at dinner, Anna spontaneously remarked: "My brother is in Italy, and has a house of cloth and glass, but it does not tumble down."

In this case as in the others it was impossible to ask for an explanation; the resistances were too great and Anna could not be drawn into conversation. This former, officious and pretty explanation is very significant. For some three months the two sisters had been building a stereotyped fanciful conception of a "big brother." This brother knows everything, he can do and has everything, he has been and is in every place where the children are not; he is owner of great cows, oxen, horses, dogs; everthing is his, etc. Each sister has such a "big brother." We must not look far for the origin of this fancy; the model for it is the *father* who seems to correspond to this conception: he seems to be like a brother to mama. The children, too, have their similar powerful "brother." This brother is very brave; he is at present in dangerous Italy and inhabits an impossible fragile house, and *it does not tumble down*. For the child this realizes an important wish. *The earthquake is no longer to be dangerous.* As a consequence of this the child's fear disappeared and *stayed away*. The fear of earthquakes now entirely vanished. Instead of calling her father to her bed to conjure away the fear, she now became very affectionate and begged him every night to kiss her.

In order to test this new state of affairs the father showed her pictures illustrating volcanoes and earthquake devastations. Anna remained unaffected, she examined the pictures with indifference, remarking, "These people are dead; I have already seen that quite often." The picture of a volcanic eruption no longer had any attraction for her. Thus all her scientific interest collapsed and vanished as suddenly as it came. During

the days following the explanation Anna had quite important matters to occupy herself with; she disseminated her newly acquired knowledge among those about her in the following manner: She began by again circumstantially affirming what had been told her, viz., that Freddy, she, and her younger sister had grown in her mother, that papa and mama grew in their mothers, and that the servants likewise grew in their respective mothers. By frequent questions she tested the true basis of her knowledge, for her suspicion was aroused in no small measure, so that it needed many confirmations to remove all her uncertainties.

On one occasion the trustworthiness of the theory threatened to go to pieces. About a week after the explanation the father was taken sick with influenza and consequently had to remain in bed during the forenoon. The children knew nothing about this, and Anna coming into the parents' bedroom saw what was quite unusual, namely, that her father was remaining in bed. She again took on a peculiar surprised expression; she remained at a distance from the bed and would not come nearer; she was apparently again reserved and suspicious. But suddenly she burst out with the question, "Why are you in bed, have you a plant in your belly, too?"

The father was naturally forced to laugh. He calmed her, however, by assuring her that children never grow in the father, that only women can have children and not men; thereupon the child again became friendly. But though the surface was calm the problems continued to work in the dark. A few days later while at dinner Anna related the following dream: "I dreamed last night of Noah's ark." The father then asked her what she had dreamed about it, but Anna's answer was sheer nonsense. In such cases it is necessary only to wait and pay attention. A few minutes later she said to her mother, "I dreamed last night about Noah's ark, and there were a lot of little animals in it." Another pause. She then began her story for the third time. "*I dreamed last night about Noah's ark, and there were a lot of little animals in it, and underneath there was a lid and that opened and all the little animals fell out.*"

The children really had a Noah's ark, but its opening, a lid, was on the roof and not underneath. In this way she delicately intimated that the story of the birth from mouth or breast is incorrect, and that she had some inkling where the children came out.

A few weeks then passed without any noteworthy occurrences. On one occasion she related the following dream: "I dreamed about papa and mama; they had been sitting late in the study and we children were there too." On the face of

this we find a wish of the children, to be allowed to sit up as long as the parents. This wish is here realized or rather it is utilized to express a more important wish, namely, *to be present in the evening when the parents are alone*; of course quite innocently it was in the *study* where she has seen all the interesting books and where she has satiated her thirst for knowledge; *i. e.*, she was really seeking an answer to the burning question, whence the little brother came. If the children were there they would find out.<sup>1</sup> A few days later Anna had a terrifying dream from which she awoke crying, "The earthquake was coming, the house had begun to shake." Her mother went to her and calmed her by saying that the earthquake was not coming, that everything was quiet, and that everybody was asleep. Whereupon Anna said: "*I would like to see the spring, when all the little flowers are coming out and the whole lawn is full of flowers—I would like to see Freddy, he has such a dear little face—What is papa doing? What is he saying?* (The mother said, "He is asleep and is n't saying anything now.") Little Anna then remarked with a sarcastic smile: "*He will surely be sick again in the morning.*"

This text should be read backwards. The last sentence was not meant seriously, as it was uttered in a mocking tone. When the father was sick the last time Anna suspected that he had a "plant in his belly." The sarcasm signifies: "To-morrow papa is surely going to have a child." But this also is not meant seriously. Papa is not going to have a child; mama alone has children; perhaps she will have another child to-morrow; but where from? "What does papa do?" The formulation of the difficult problem seems here to come to the surface. It reads: What does papa really do if he does not bear children? The little one is very anxious to have a solution for all these problems, she would like to know how Freddy came into the world, she would like to see how the little flowers come out of the earth in the spring, and these wishes are hidden behind the fear of earthquakes.

After this intermezzo Anna slept quietly until morning. In the morning her mother asked her what she had dreamed. She did not at first recall anything, and then said: "*I dreamed that I could make the summer, and then some one threw a Punch<sup>2</sup> down into the closet.*"

This peculiar dream apparently has two different scenes which are separated by "then." The second part draws its material from the recent wish to possess a Punch, that is, to

<sup>1</sup> This wish to sit up with the father and mother until late at night often plays a great part later in a neurosis. Its object is to prevent the parental coitus.

<sup>2</sup> A doll from Punch and Judy.

have a masculine doll just as the mother has a little boy. Some one threw Punch down into the closet; one often lets other things fall down into the water closet. *It is just like this that the children, too, come out.* We have here an analogy to the "Lumpf-theory" of little John.<sup>1</sup> Whenever several scenes are found in one dream, each scene ordinarily represents a particular variation of the complex elaboration. Here accordingly the first part is only a variation of the theme found in the second part. The meaning of "to see the spring" or "to see the little flowers come out" we have already seen. Anna now dreams that she *can make the summer*, that is she can bring it about that the little flowers shall come out. She herself can make a little child, and the second part of the dream represents this just like a passage of the bowels. Here we find the egotistic wish which is behind the seemingly objective interest of the nocturnal conversation.

A few days later the mother was visited by a lady who expected soon to become a mother. The children seemed to take no interest in the matter, but the next day they amused themselves with the following play which was directed by the older one: they took all the newspapers they could find in their father's paperbasket and stuffed them under their clothes, so that the intention of the imitation was quite plain. During the night little Anna had another dream: "*I dreamed about a woman in the city, she had a very big belly.*" The chief actor in the dream is always the dreamer himself under some definite aspect; thus the childish play of the day before is fully solved.

Not long thereafter Anna surprised her mother with the following performance: She stuck her doll under her clothes, then pulled it out slowly head downwards, and at the same time remarked, "*Look, the little child is coming out, it is now all out.*" By this means Anna tells her mother, "You see, thus I apprehend the problem of birth. What do you think of it? Is that right?" The play is really meant to be a question, for, as we shall see later, this conception had to be officially confirmed. That ruminations on this problem by no means ended here is shown by the occasional ideas conceived during the following weeks. Thus she repeated the same play a few days later with her Teddy Bear, which functioned as an especially loving doll. One day, looking at a rose, she said to her grandma, "See, the rose is getting a baby." As her grandma did not quite understand her she pointed to the enlarged calyx and said, "You see she is quite thick here."

Anna once quarrelled with her younger sister, and the latter

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<sup>1</sup>See analysis of a 5-year-old boy, *Jahrbuch f. Psychoanalytische u. Psychopathologische Forschungen*, Vol. I.

angrily exclaimed, "I will kill you." Whereupon Anna answered, "When I am dead you will be all alone; then you will have to pray to the dear Lord for a live baby." But the scene soon changed: Anna was the angel, and the younger sister was forced to kneel before her and pray to her that she should present to her a living child. In this way Anna became the presenting mother.

Oranges were once served on the table. Anna impatiently asked for one and said, "*I am going to take an orange and swallow it all down into my belly, and then I shall get a little child.*" Who will not think here of the fairy tales in which childless women finally become pregnant by swallowing fruit, fish, and similar things.<sup>1</sup> Thus Anna attempts to solve the problem *how the children actually come into the mother*. She thus enters into an examination which hitherto has not been formulated with so much sharpness. The solution follows in the form of an *analogy*, which is quite characteristic of the archaic thinking of the child. (In the adult, too, there is a kind of thinking by analogy which belongs to the stratum lying immediately below consciousness. Dreams bring the analogies to the surface; the same may be observed also in *dementia præcox*.) In German as well as in numerous foreign fairy tales one frequently finds such characteristic childish comparisons. Fairy tales seem to be the myths of the child, and therefore contain among other things the mythology which the child weaves concerning the sexual processes. The spell of the fairy tale poetry, which is felt even by the adult, is explained by the fact that some of the old theories are still alive in our unconscious minds. We experience a strange, peculiar and familiar feeling when a conception of our remotest youth is again stimulated. Without becoming conscious it merely sends into consciousness a feeble copy of its original emotional strength.

The problem how the child gets into the mother was difficult to solve. As the only way of taking things into the body is through the mouth, it could evidently be assumed that the mother eats something like a fruit which then grows in her belly. But then comes another difficulty, namely, it is clear enough what the mother produces but it is not yet clear what the father is good for.

What does the father do? Anna now occupied herself exclusively with this question. One morning she ran into the parents' bedroom while they were dressing, she jumped into her father's bed, she lay down on her belly and kicked with her legs, and called at the same time, "Look! does papa do

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<sup>1</sup> Franz Riklin.

*that?"* The analogy to the horse of "little John" which raised such disturbance with its legs, is very surprising.

With this last performance the solving of the problem seemed to rest entirely, at least the parents found no opportunity to make any pertinent observations. That the problem should come to a standstill just here is not at all surprising, for this is really its most difficult part. Moreover we know from experience that not very many children go beyond these limits during the period of childhood. The problem is almost too difficult for the childish reason, which still lacks much irreducible knowledge without which the problem cannot be solved.

This standstill lasted about five months during which no phobias or other signs of complex elaboration appeared. After the lapse of this time there appeared premonitory signs of some new incidents. Anna's family lived at that time in the country near a lake where the mother and children could bathe. As Anna feared to wade farther into the water than knee-deep, her father once put her into the water, which led to an outburst of crying. In the evening while going to bed Anna asked her mother, "Do you not believe that father wanted to drown me?" A few days later there was another outburst of crying. She continued to stand in the gardener's way until he finally placed her in a newly dug hole. Anna cried bitterly and afterwards maintained that the gardener wished to bury her. To finish up with, Anna awoke during the night with fearful crying. Her mother went to her in the adjoining room and quieted her. Anna dreamed that "a train passed and then fell in a heap."

We have here repeated the "stage coach" of "little John." These incidents showed clearly enough that there was again fear in the air, *i. e.*, that there again had arisen a resistance against the transposition on the parents, and that therefore a larger part of the love was converted into fear. This time suspicion was directed not against the mother, but against the father, who she was sure must know the secret, but would never let anything out. What could the father be secreting or doing? To the child this secret appeared as something dangerous, so that she felt the worst might be expected from the father. (This feeling of childish anxiety with the father as object we see again most distinctly in adults, especially in *dementia præcox*, which lifts the veil of obscurity from many unconscious processes, as though it were following psych-analytic principles.) It was for this reason that Anna apparently came to the very absurd conclusion that her father wanted to drown her. At the same time her fear contained the thought that the *object of the father had some relation to a dangerous*

*action.* This stream of thought is no arbitrary interpretation. Anna meanwhile grew up a little and her interest for her father took on a special coloring which is hard to describe. Language possesses no words to describe the very special kind of affectionate curiosity which radiated from the child's eyes.

Anna once took marked delight in assisting the gardener while he was sowing grass, without apparently divining the profound significance of the child's play. About a fortnight later she began to observe with great pleasure the sprouting young grass. On one of these occasions she asked her mother the following question: "Tell me, how did the eyes grow into the head?" The mother told her that she did not know. Anna, however, continued to ask whether the Lord or her papa could tell this? The mother then referred her to the father, who might tell her how the eyes grew into the head. A few days later there was a family reunion at a tea, and after everything was over the guests departed. The father remained at the table reading the paper and Anna also remained. Suddenly approaching her father she said, "Tell me, how did the eyes grow into the head?" Father: "They did not grow into the head; they were there from the beginning and grew with the head."

A. "Were not the eyes planted?"

F. "No, they grew in the head like the nose."

A. "Did the mouth and the ears grow in the same way? and the hair, too?"

F. "Yes, they all grew in the same way."

A. "And the hair, too? But the mousies came into the world naked. Where was the hair before? Were there no seeds added?"

F. "No, you see, the hair really came out of little grains which are like seeds, but these were already in the skin long before and nobody sowed them." The father was now getting concerned; he knew whether the little one's thoughts were directed, but he did not wish to overthrow, for the sake of a former false application, the opportunely established seed-theory which she had most fortunately gathered from nature; but the child spoke with an unwonted seriousness which demanded consideration.

Anna (evidently disappointed, and with a distressed tone): "But how did Freddy get into mama? Who stuck him in? and who stuck you into your mama? Where did he come out from?"

From this sudden storm of questions the father chose the last for his first answer. "Just think, you know well enough that Freddy is a boy; boys become men and girls women. Only women and not men can have children; now just think, where could Freddy come out from?"

A. (Laughs joyfully and points to her genitals): "Did he come out here?"

Father: "Yes, of course, you certainly must have thought of this before?"

A. (Overlooking the question): "But how did Freddy get into mama? Did anybody plant him? Was the seed planted?"

This very precise question could no longer be evaded by the father. He explained to the child, who listened with the greatest attention, that the mother is like the soil and the father like the gardener; that the father provides the seed which grows in the mother, and thus gives origin to a baby. This answer gave extraordinary satisfaction; she immediately ran to her mother and said, "Papa has told me everything, now I know it all." She did not, however, tell what she knew.

The new knowledge was, however, put into play the following day. Anna went to her mother and said, "Think, mama, papa told me how Freddy was a little angel and was brought from heaven by a stork." The mother was naturally surprised and said, "No, you are mistaken, papa surely never told you such a thing!" whereupon the little one laughed and ran away.

This was apparently a mode of revenge. Her mother did not wish or was not able to tell her how the eyes grew into the head, hence she did not know how Freddy got into her. It was for this reason that she again tempted her with the old story.

I wish to impress firmly upon parents and educators this instructive example of child psychology. In the learned psychological discussions on the child's psyche we hear nothing about those parts which are so important for the health and naturalness of our children, nor do we hear more about the child's emotions and their conflicts; and yet they play a most important rôle.

It very often happens that children are erroneously treated as quite imprudent and irrational beings. Thus on indulgently remarking to an intelligent father, whose 4-year-old daughter masturbated excessively, that care should be exercised in the presence of the child which slept in the same room with the parents, I received the following indignant reply, "I can absolutely assure you that the child knows nothing about sexual matters." This would recall that distinguished old neurologist who wished to adjudicate the attribute "sexual" from a child-birth phantasy which was represented in a dreamy state.

On the other hand a child evincing a neurotic talent exaggerated by neurosis may be urged on by solicitous parents. How easy and tempting it would have been, *e. g.*, in the pres-

ent case, to admire, excite, and develop prematurely the child's eager desire for learning, and thereby develop an unnatural *blasé* state and a precociousness masking a neurosis. In such cases the parents must look after their own complexes and complex tendencies and not make capital out of them at the expense of the child. The idea should be dismissed once for all that children are held in bondage by, or that they are the toys of, their parents. They are characteristic and new beings. In the matter of enlightenment on things sexual it can be affirmed they suffer from the preconceived opinion that the truth is harmful. Many neurologists are of the opinion that even in grownups enlightenment on their own psychosexual processes is harmful and even immoral. Would not the same persons perhaps refuse to admit the existence of the genitals themselves?

One should not, however, go from this extreme of prudishness to the opposite one, namely that of enlightenment *à tout prix*, which may turn out as foolish as it is disagreeable. In this respect I believe the use of some discretion to be decidedly the wiser plan; still if children come upon any idea, they should be deceived no more than adults.

I hope, ladies and gentlemen, that I have shown you what complicated psychic processes the psychanalytic investigation reveals in the child, and how great is the significance of these processes for the mental well-being as well as for the general psychic development of the child. What I have been unable to show you is the universal validity of these observations. Unfortunately, I am not in a position to show this for I do not know myself how much of it is universally valid. Only the accumulation of such observations and a more far-reaching penetration into the problem thus broached will give us a complete insight into the laws of the psychic development. It is to be regretted that we are at present still far from this goal. But I confidently hope that educators and practical psychologists, whether physicians or deep-thinking parents, will not leave us too long unassisted in this immensely important and interesting field.

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